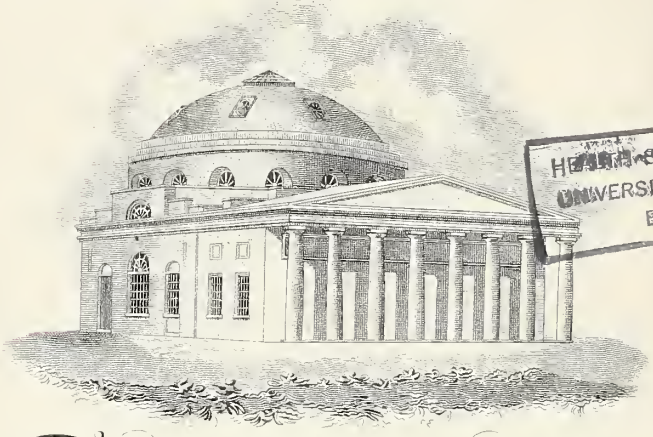
Z 4 1945

LIBRARY
OF THE
School of Medicine



HEALTH SCIENCES LIB
UNIVERSITY OF MARYLAND
BALTIMORE

University of Maryland

THE JOURNAL
OF THE
Indiana State Medical Association
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

E. M. SHANKLIN, M.D., Hammond, Editor
THOMAS A. HENDRICKS, Indianapolis, Managing Editor.
NELLA H. ROKKE, Indianapolis, Assistant Editor

EDITORIAL BOARD

James F. Balch, M.D., Indianapolis
E. L. Van Buskirk, M.D., Lafayette
Herman M. Baker, M.D., Evansville
L. G. Montgomery, M.D., Muncie
James O. Ritchey, M.D., Indianapolis
Robert V. Hoffman, M.D., South Bend

Office of Publication: 1021 Hume-Mansur Bldg., Indianapolis, Indiana

INDEX TO VOLUME 35

January to December, Inclusive, 1942

January	—Pages 1 to 58	July	—Pages 345 to 400
February	—Pages 59 to 122	August	—Pages 401 to 450
March	—Pages 123 to 186	September	—Pages 451 to 548
April	—Pages 187 to 240	October	—Pages 549 to 602
May	—Pages 241 to 294	November	—Pages 603 to 676
June	—Pages 295 to 344	December	—Pages 677 to 752

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

Index to Volume 35, January-December, 1941

ORIGINAL ARTICLES

Accidents, Indiana Coal Mine (Maple) 421
Aids to the General Practitioner in the Conservation of Vision (Mahoney) 255
Allergy in General Practice (Forman) 351
Anesthesia, Facts and Fallacies Concerning Modern (Wood) 69
Anesthesia in Obstetrics, Caudal Block (Manalan) 564
Anesthesia? What Is Good (Romberger) 613
Anesthetic Agents and Anesthetic Failures (Whitehead) 74
Appendicitis, A Modern Method of Managing Acute, with Rupture and Generalized Peritonitis (Reed-Leone-Word) 307
Arthritics, Organization of Therapy in the Treatment of (Pemberton) 64

Barbiturate, Intravenous, A Simple Device for Administering (Mueller) 77
Brucellosis, Chronic (Davis) 459
Burns, The Treatment of (Welborn) 363

Cancer of the Larynx—Treatment by Irradiation and Report of Cases (Bulson) 192
Cancer of the Rectum, Early Symptoms and Signs of (Habermel) 196
Carcinoma (Seminoma) of the Spermatic Cord, Report of a Case of Embryonic (Cole-Campagna) 67
Cardiac Emergencies, Diagnosis and Treatment of (Lyons) 463
Cardiology in General Practice (Cook) 457
Caudal Block Anesthesia in Obstetrics (Manalan) 564
Cerebral Melanomata, Multiple Subcortical Clots with —A Case Report (Klemme-Woolsey) 566
Chemotherapeutic Action of Sulfapyridine by Local Anesthetics, Inhibition of (Powell-Krahl-Clowes) 62
Chemotherapy in Ophthalmology—A Review of Recent Literature (Rutherford) 697
Clinical Application of the Newer Laboratory Procedures as Pertains to the Man in General Practice—Panel Discussion, The (Ritchey-Giordano-Dodds-Wilder) 17
Clots, Multiple Subcortical, with Cerebral Melanomata—A Case Report (Klemme-Woolsey) 566
Coal Mine Accidents, Indiana (Maple) 421
Colon, Diverticulitis of the (Berman-Bauer) 197
Conjunctivitis, Follicular, and Trachoma (Van Buskirk) 243
Conservation of Vision, Aids to the General Practitioner in the (Mahoney) 255
Coronary Thrombosis, Treatment of (Smith) 59

Delirium Tremens (Boyd-Rossman) 451
Device, A Simple, for Administering Intravenous Barbiturate (Mueller) 77
Diseases, Occupational (Reed-Harcourt) 412
Diseases, Some Occupational, Associated with the War Production Program (Spolyar-Ferree) 402
Diverticulitis of the Colon (Berman-Bauer) 197
Drugs, Emergency, in General Practice (Yonkman) 210

Ehrlich's Test for Urinary Urobilinogen, The Role of Urobilinogen in Liver Metabolism and (Neuwelt) 355
Embryonic Carcinoma (Seminoma) of the Spermatic Cord, Report of a Case of (Cole-Campagna) 67
Emotional Aspect in Pediatrics, The (Rust) 264
Endocrine Diagnosis and Therapy, Practical Points in (Hutton) 259
Eyelids, Inflammatory Swelling of the (Wells) 252
Eyes and the Military Services, The (Harding) 246
Eye Surgery, Recent Advances in (Ravdin) 249

Fatigue Problem in Industry, The (Piatek) 407
Fractures, Adequate Internal Fixation of (Stahl) 702

Gaseous Indigestion (Richey) 21
Gastroduodenal Ulcer, The Etiology and Surgical Treatment of (Dragstedt) 552
General Practice, Allergy in (Forman) 351
General Practice, Cardiology in (Cook) 457
General Practice, Emergency Drugs in (Yonkman) 210
General Practitioner in the Present Industrial Hygiene Program, The Role of the (Townsend) 603

Health and Industry (Fishbein) 401
Health, Industrial (Selby) 1
Heart Disease, Arteriosclerotic (Ferguson) 129
Hip-Nailing Procedure, Determination of Alignment in the (Davidson) 461

Indigestion, Gaseous (Richey) 21
Industrial Health (Selby) 1
Industrial Hygiene Program, The Role of the General Practitioner in the Present (Townsend) 603
Industrial Practice, Problems in Wartime (Forster) 416
Industry, Health and (Fishbein) 401
Infantile Paralysis, The Kenny Method of Treatment for (Cole-Pohl-Knapp) 681
Infantile Paralysis, The Kenny Treatment of (Garceau-Martz-Reith) 677
Inflammatory Swelling of the Eyelids (Wells) 252
Injuries to the Peripheral Nerves (Maurer) 620
Intestinal Obstruction (Robison) 295

Kenny Method of Treatment for Infantile Paralysis, The (Cole-Pohl-Knapp) 681
Kenny Method, Report of Results in (Kenny) 679
Kenny Treatment of Infantile Paralysis, The (Garceau-Martz-Reith) 677
Kidney, Surgical Lesions of, Their Differential Diagnosis—with a Note on Management (Rupel) 23

Laboratory Procedures, The Clinical Application of the Newer, as Pertains to the Man in General Practice—Panel Discussion (Ritchey - Giordano - Dodds-Wilder) 17
Larynx, Cancer of the, Treatment by Irradiation and Report of Cases (Bulson) 192
Lesions, Surgical, of the Kidney—Their Differential Diagnosis, with a Note on Management (Rupel) 23
Lipomata of the Omentum (Ikins-Arbogast) 354
Liver, Polycystic Disease of the (Inlow-Richards) 4
Lobelias in Medicine, The (Hulpieu) 556

Marion County, The Procurement and Assignment Service for (Newcomb) 187
Mastoiditis, Complications of (Swan) 9
Medical Problems, Social Security (Phifer) 139
Medicine in Ancient Rome (Kiser) 345
Medicine, Physical, Rational Use of (Voyles) 148
Medicine, The Lobelias in (Hulpieu) 556
Military Services, The Eyes and the (Harding) 246
Mononucleosis, Infectious (Ash-Arbogast) 562
Mortality of the Poor Surgical Risk, Lowering the (Casper) 358

Obstruction, Intestinal (Robison) 295
Occupational Diseases (Reed-Harcourt) 412
Occupational Diseases Associated with the War Production Program, Some (Spolyar-Ferree) 402
Omentum, Lipomata of the (Ikins-Arbogast) 354
Ophthalmology, Chemotherapy in,—A Review of Recent Literature (Rutherford) 697
Ophthalmology: Past, Present and Future (McBride) 241
Ophthalmology, The Practice of (Ruby) 78

Panel Discussion—The Clinical Application of the Newer Laboratory Procedures as Pertains to the Man in General Practice (Ritchey - Giordano - Dodds-Wilder) 17

28619

Pediatrics, The Emotional Aspect in (Rust) 264
Penicillin Chemotherapy of Mice Infected with Staphylococcus Aureus (Powell-Jamieson) 361
Peripheral Nerves, Injuries to the (Maurer) 620
Peritonitis, Generalized, A Modern Method of Managing Acute Appendicitis with Rupture (Reed-Leone-Word) 307
Physical Medicine, Rational Use of (Voyles) 148
Pneumonia, The Treatment of (Plummer) 608
Poliomyelitis, After-Treatment of (Acker) 14
Poliomyelitis and Tuberculosis, Is There a Relationship Between (Morgan) 686
Polycystic Disease of the Liver (Inlow-Richards) 4
Pregnancy Complicated by Preeclamptic Toxemia and Pernicious Anemia (Procopie-Armington) 466
President's Address (Austin) 549
Problems in Wartime Industrial Practice (Forster) 416
Procurement and Assignment Service for Marion County, The (Newcomb) 187
Procurement and Assignment Service, The Functions of the (Seeley) 126
Prostate in Young Individuals, Resection of (McCown) 364

Rectum, Early Symptoms and Signs of Cancer of the (Habermel) 196
Resection of Prostate in Young Individuals (McCown) 364
Rome, Ancient, Medicine in (Kiser) 345

Selective Service and the Medical Profession (Hershey) 123
Social Security Medical Problems (Phifer) 139
Spermatic Cord, Report of a Case of Embryonic Carcinoma (Seminoma) of the (Cole-Campagna) 67
Staphylococcus Aureus, Penicillin Chemotherapy of Mice Infected with (Powell-Jamieson) 361
Sulfapyridine by Local Anesthetics, Inhibition of Chemotherapeutic Action of (Powell-Krahl-Clowes) 62
Surgery, Eye, Recent Advances in (Ravdin) 249
Surgical Lesions of the Kidney—Their Differential Diagnosis, with a Note on Management (Rupel) 23
Surgical Risk, Lowering the Mortality of the Poor (Casper) 358

Teachers and School Employees in Southwestern Indiana, X-Ray Examination of (Crimm) 367
Therapy in the Treatment of Arthritics, Organization of (Pemberton) 64
Thrombosis and Pulmonary Embolism, The Prophylaxis of Postoperative (Cogswell) 304
Thrombosis, Coronary, Treatment of (Smith) 59
Tobacco Intoxication (Kilgore) 313
Toxemia and Pernicious Anemia, Pregnancy Complicated by Preeclamptic (Procopie-Armington) 466
Trachoma and Follicular Conjunctivitis (Van Buskirk) 243
Treatment, After, of Poliomyelitis (Acker) 14
Tremens, Delirium (Boyd-Rossman) 451
Tuberculosis, Is There a Relationship Between Poliomyelitis and (Morgan) 686
Tularemia—A Review and Its Present Status in Indiana (Jackson) 691

Ulcer, Gastroduodenal, The Etiology and Surgical Treatment of (Dragstedt) 552
Urobilinogen in Liver Metabolism and Ehrlich's Test for Urinary Urobilinogen, The Role of (Neuwelt) 355

Vision, Aids to the General Practitioner in the Conservation of (Mahoney) 255

X-Ray Examination of Teachers and School Employees in Southwestern Indiana (Crimm) 367

EDITORIALS

Medical Society Does Things! A 154
New Version of an Old Story, A 522
Informal Dinner, An 521
Right Defended, A 86
Army, Feeding the 370
Army Streamlines Recruiting 267
Ask Your People to Help! 707
Assignment, Procurement and 523

Board of Health Changes 626
Bonds, War 155, 216, 372, 428, 523, 574 and 708
Call to the Medical Profession, A 29

Cancer 215
Child-Health Conference, The 268
Children Belong to You? Do Your 372
Christmas, 1942 704
Civilian Defense 26
Civilian Defense, Our Part in 217
Conference, The Child-Health 268
Conference, Secretaries-Editors' 704
Conservation of Vision 267

Doctors and Gas 706
Doctors and Tires 323
Doctors' Disease 155
Doctors, Rationing 370
Dog Days 371
D.P.W., One County's Experience with the 269
Draftees, Rehabilitation of 85

Editorial Notes:
30, 87, 156, 218, 270, 323, 375, 429, 524, 575, 627 and 708
Election in Indiana, The 706
Enlistments, Medical, New Problems in 624
Enlistments, Medical 216, 570, and 705
Enlist or be Drafted? 320
Enrollment, The 322

Feeding the Army 370
French Lick Convention, The 623
French Lick Session, The 427

General Hospital No. 32 320

Industrial Health Committee 625
It's Up to You: Act! 153

Local Practitioners, Grouping—Another Consistent Challenger 373

Man Proposes—The Law Disposes 26
Marriage Law Troubles 371
Medical Care, Wartime 574
Medical Enlistments, New Problems in 624
Medical Enlistments 216, 570, and 705
Medical Man of Sixty, The 571
Medical Officer Thinks About It, What the Young Army 428
Medical Officers Needed, More 521
Medical Profession, A Call to the 29
Medical Society Does Things, A 154
Military Medical Officers 84
Motor Speeds, Limitation of 626

No Time to Retire! 154
Nursing Care, The Shortage of 427

Oberlin Award, The 522
Officers, Military Medical 84

Physicians for War and Home Front, Ratio of 27
Physician Replacement 425
Physician's Responsibility to Industry 425
Practitioners, Grouping Local, Another Consistent Challenger 373
Premarital Examination Laws in the United States 429
Premarital Serologic Tests 572
President, Our 570
Procurement and Assignment 523
Psychiatric Needs 85

Railroads in Wartime, The ---- 426
Rationing Doctors ---- 370
Recruiting, Army Streamlines ---- 267
Rehabilitation of Draftees ---- 85
Rehabilitation Program, The ---- 218

Save by Enlisting Your Dollars! ---- 322
Secretaries' Conference, The ---- 153
Secretaries-Editors' Conference ---- 704
Silver Lining, Some Slight ---- 28
Symptoms, Old, Newly Interpreted ---- 704

Tests, Premarital Serologic ---- 572
The Making of a "Gob" ---- 573
Time Loss Is War Loss ---- 424
Time Out for Thinking ---- 268
Tires, Doctors and ---- 323

Venereal Diseases and the Army ---- 321
Vision Number, Conservation of ---- 267

War Needs ---- 372
What the Young Army Medical Officer Thinks About It! ---- 428

AUTHORS

Acker, Robert B., South Bend (After-Treatment of Poliomyelitis) ---- 14
Adams, Lillian, Indianapolis (Military Need for Nurses) ---- 640
Arbogast, J. L., and Ikins, R. G., Lafayette (Lipomata of the Omentum) ---- 354
Arbogast, J. L., and Ash, H. H., Lafayette (Infectious Mononucleosis) ---- 562
Armington, Charles, and Procopie, George, Anderson (Pregnancy Complicated by Preeclamptic Toxemia and Pernicious Anemia) ---- 466
Ash, H. H., and Arbogast, J. L., Lafayette (Infectious Mononucleosis) ---- 562
Austin, Maynard A., Anderson (President's Address) 549

Bauer, Thomas B., and Berman, J. K., Indianapolis (Diverticulitis of the Colon) ---- 197
Berman, J. K., and Bauer, Thomas B., Indianapolis (Diverticulitis of the Colon) ---- 197
Bird, Charles R., Indianapolis (Defense and Welfare Day) ---- 40
Bird, Charles R., Indianapolis (Procurement and Assignment of Physicians) ---- 327
Bird, Charles R., Indianapolis (Full-time Recruiting Board Withdrawn) ---- 442
Bird, Charles R., Indianapolis (Physicians to Meet the Need of the Armed Forces) ---- 536
Bird, Charles R., Indianapolis (Mobilization and Preparedness) ---- 720
Bowman, George W., and Weyerbacher, A. F., Indianapolis (Report on Hot Springs Conference) ---- 717
Boyd, David A., and Rossman, William B., Indianapolis (Delirium Tremens) ---- 451
Bulson, Eugene L., Fort Wayne (Cancer of the Larynx—Treatment by Irradiation and Report of Cases) ---- 192

Cameron, Don F., Fort Wayne (A Summary of the Activities of the House of Delegates of the American Medical Association at Its Meeting in Atlantic City, June 8-11, 1942) ---- 379
Campagna, E. A., and Cole, A. V., East Chicago (Report of a Case of Embryonic Carcinoma (Seminoma) of the Spermatic Cord) ---- 67
Casper, Misch, Louisville, Ky. (Lowering the Mortality of the Poor Surgical Risk) ---- 358
Casper, Misch, Louisville, Ky. (Notes on the 1942 A.M.A. Convention at Atlantic City) ---- 581
Clowes, G. H. A.; Powell, H. M., and Krahl, M. E., Indianapolis (Inhibition of Chemotherapeutic Action of Sulfapyridine by Local Anesthetics) ---- 62
Cogswell, H. D., Whiting (The Prophylaxis of Postoperative Thrombosis and Pulmonary Embolism) 304
Cole, A. V., and Campagna, E. A., East Chicago (Report of a Case of Embryonic Carcinoma (Seminoma) of the Spermatic Cord) ---- 67
Cole, Wallace H., Pohl, John F., and Knapp, Miland E., Minneapolis, Minn. (The Kenny Method of Treatment for Infantile Paralysis) ---- 681
Cook, George M., Hammond (Cardiology in General Practice) ---- 457
Crimm, Paul D., Evansville (X-Ray Examination of Teachers and School Employees in Southwestern Indiana) ---- 367

Davidson, William Donald, Evansville (Determination of Alignment in the Hip-Nailing Procedure) ---- 461
Davis, Neal, Lowell (Chronic Brucellosis) ---- 459
Dodds, Wemple, Crawfordsville; Giordano, Alfred S., South Bend; Ritchey, J. O., Indianapolis, and Wilder, Gorden B., Anderson (The Clinical Application of the Newer Laboratory Procedures as Pertains to the Man in General Practice—Panel Discussion) ---- 17
Dragstedt, Lester R., Chicago, Ill. (The Etiology and Surgical Treatment of Gastroduodenal Ulcer) 552

Ferguson, Arthur N., Fort Wayne (Arteriosclerotic Heart Disease) ---- 129
Ferree, John W., and Spolyar, Louis W., Indianapolis (Some Occupational Diseases Associated with the War Production Program) ---- 402
Fishbein, Morris, Chicago, Ill. (Health and Industry) 401
Forman, Jonathan, Columbus, Ohio (Allergy in General Practice) ---- 351
Forster, N. K., Hammond (Problems in Wartime Industrial Practice) ---- 416

Garceau, George, Martz, Carl, and Reith, Paul, Indianapolis (The Kenny Treatment of Infantile Paralisis) ---- 677
Giordano, Alfred S., South Bend; Dodds, Wemple, Crawfordsville; Ritchey, J. O., Indianapolis, and Wilder, Gordon B., Anderson (The Clinical Application of the Newer Laboratory Procedures as Pertains to the Man in General Practice—Panel Discussion) ---- 17

Habermel, John, New Albany (Early Symptoms and Signs of Cancer of the Rectum) ---- 196
Harcourt, A. K., and Reed, Jewett V., Indianapolis (Occupational Diseases) ---- 412
Harding, Myron S., Indianapolis (The Eyes and the Military Services) ---- 246
Hauss, Augustus P., New Albany (How Floyd County Emergency Medical Service Has Been Developed) ---- 642
Hershey, Lewis B., Washington, D. C. (Selective Service and the Medical Profession) ---- 123
Holmblad, Edward C., Chicago, Ill. (Thoughts About Problems of Wartime Medicine) ---- 409
Huber, Carl P., Indianapolis (Maternal Mortality in Indiana for the Year 1941) ---- 330
Hulpieu, H. R., Indianapolis (The Lobelias in Medicine) ---- 556
Hutton, James H., Chicago, Ill. (Practical Points in Endocrine Diagnosis and Therapy) ---- 259

Ikins, R. G., and Arbogast, J. L., Lafayette (Lipomata of the Omentum) ---- 354
Inlow, William DePrez, and Richards, Norman F., Shelbyville (Polycystic Disease of the Liver) ---- 4

Jackson, Clarence A., Indianapolis (Civilian Health and the Shortage of Doctors) ---- 437
Jackson, J. W., Indianapolis (Tularemia—A Review and Its Present Status in Indiana) ---- 691
Jamieson, W. A., and Powell, H. M., Indianapolis (Penicillin Chemotherapy of Mice Infected with Staphylococcus Aureus) ---- 361
Jewett, R. E., Indianapolis (Causes of Neonatal Mortality in Indiana for 1941) ---- 327

Jewett, R. E., Indianapolis (Report of Maternity Homes and Hospitals in Indiana) 382

Keller, William S., Cleveland, Ohio (Medical Care for Millions of People in Industry) 436
Kenny, Sister Elizabeth, Minneapolis, Minn. (Report of Results in Kenny Method) 679
Kibby, Sydney V., Fort Benjamin Harrison (Doctor, Soldier and Bibliophile Honored) 276
Kilgore, Byron, Danville (Tobacco Intoxication) 313
Kiser, Edgar F., Indianapolis (Some Early American Medical Authors) 97, 165, 226, 280, 332, 345
Klemme, Roland M., and Woolsey, R. Dean, Saint Louis, Mo. (Multiple Subcortical Clots with Cerebral Melanomata) 566
Knapp, Miland E., Cole, Wallace H., and Pohl, John F., Minneapolis, Minn. (The Kenny Method of Treatment for Infantile Paralysis) 681
Krahl, M. E., Powell, H. M., and Clowes, G. H. A., Indianapolis (Inhibition of Chemotherapeutic Action of Sulfapyridine by Local Anesthetics) 62

Lanza, A. J., Washington, D.C. (Industrial Activitives of the Surgeon General's Office) 416
Laphan, Maxwell E., Washington, D.C. (Functions of Committee on the Allocation of Medical Personnel, Procurement and Assignment Service for Physicians, Dentists and Veterinarians) 411
Lee, Glen Ward, Indianapolis (Physical Examination by Local Selective Service Examiners) 636
Leone, George E.; Word, Buford, and Reed, William C., Camp Shelby, Miss. (A Modern Method of Managing Acute Appendicitis with Rupture and Generalized Peritonitis) 307
Little, C. C., New York, N.Y. (With Your Help We Shall Be Victorious in Our Fight Against Cancer) 225
Lyons, Robert Edward, Bloomington (Diagnosis and Treatment of Cardiac Emergencies) 463

Mahoney, Charles L., Terre Haute (Aids to the General Practitioner in the Conservation of Vision) 255
Manalan, S. A., Indianapolis (Caudal Block Anesthesia in Obstetrics) 564
Maple, James B., Sullivan (Indiana Coal Mine Accidents) 421
Martz, Carl, Garceau, George, and Reith, Paul, Indianapolis (The Kenny Treatment of Infantile Paralysis) 677
Maurer, J. F., Brazil (Injuries to the Peripheral Nerves) 620
McBride, Noel S., Terre Haute (Ophthalmology: Past, Present and Future) 241
McCown, P. E., Indianapolis (Resection of Prostate in Young Individuals) 364
Mettel, Howard B., Indianapolis (Special Health Services of Division for Crippled Children, Indiana State Department of Public Welfare for Children Afflicted with Acute or Chronic Infantile Paralysis) 714
Morgan, Isabel, Danville (Is There A Relationship Between Poliomyelitis and Tuberculosis) 686
Mueller, Lillian B., Indianapolis (A Simple Device for Administering Intravenous Barbiturate) 77

Neuwelt, Frank, Gary (The Role of Urobilinogen in Liver Metabolism and Ehrlich's Test for Urinary Urobilinogen) 355
Newcomb, John R., Indianapolis (The Procurement and Assignment Service for Marion County) 187

Paullin, James E., Atlanta, Ga. (The Physician in Industry) 412
Pemberton, Ralph, Philadelphia, Pa. (Organization of Therapy in the Treatment of Arthritics) 64
Peterson, Carl M., Chicago, Ill. (Industrial Health in Wartime) 410
Phifer, Charles H., Chicago, Ill. (Social Security Medical Problems) 139
Piatek, Stanley D., East Chicago (The Fatigue Problem in Industry) 407
Plummer, Norman, New York, N.Y. (The Treatment of Pneumonia) 608
Pohl, John F., Cole, Wallace H., and Knapp, Miland E., Minneapolis, Minn. (The Kenny Method of Treatment for Infantile Paralysis) 681
Powell, H. M., Krahl, M. E., and Clowes, G. H. A., Indianapolis (Inhibition of Chemotherapeutic Action of Sulfapyridine by Local Anesthetics) 62
Powell, H. M., and Jamieson, W. A., Indianapolis (Penicillin Chemotherapy of Mice Infected with Staphylococcus Aureus) 361
Procopio, George, and Armington, Charles, Anderson (Pregnancy Complicated by Preeclamptic Toxemia and Pernicious Anemia) 466

Ravdin, Bernard D., Evansville (Recent Advances in Eye Surgery) 249
Reed, Jewett V., and Harcourt, A. K., Indianapolis (Occupational Diseases) 412
Reed, William C.; Leone, George, and Word, Buford, Camp Shelby, Miss. (A Modern Method of Managing Acute Appendicitis with Rupture and Generalized Peritonitis) 307
Reith, Paul, Garceau, George, and Martz, Carl, Indianapolis (The Kenny Treatment of Infantile Paralysis) 677
Rice, Thurman B., Indianapolis (Indiana's Medical Martyrs and Heroes) 528
Richards, Norman F., and Inlow, William DePrez, Shelbyville (Polycystic Disease of the Liver) 4
Richey, Clifford O., Evansville (Gaseous Indigestion) 21
Ritchey, J. O., Indianapolis; Giordano, Alfred S., South Bend; Dodds, Wemple, Crawfordsville, and Wilder, Gordon B., Anderson (The Clinical Application of the Newer Laboratory Procedures as Pertains to the Man in General Practice—Panel Discussion) 17
Robison, J. S., Winchester (Intestinal Obstruction) 295
Romberger, Floyd T., Lafayette (What Is Good Anesthesia?) 613
Rossman, William B., and Boyd, David A., Indianapolis (Delirium Tremens) 451
Ruby, Fred McKemy, Union City (The Practice of Ophthalmology) 78
Rupel, Ernest, Indianapolis (Surgical Lesions of the Kidney—Their Differential Diagnosis, with a Note on Management) 23
Rust, Byron K., Indianapolis (The Emotional Aspect in Pediatrics) 264
Rutherford, C. W., Indianapolis (Chemotherapy in Ophthalmology—A Review of Recent Literature) 697

Schortemeier, Frederick E., Indianapolis (The Beginning of the Central Office of the Indiana State Medical Association) 42
Seeley, Samuel F., Washington, D.C. (Recommendations to All Physicians with Reference to the National Emergency) 92
Seeley, Samuel F., Washington, D.C. (The Functions of the Procurement and Assignment Service) 126
Seeley, Samuel F., Washington, D.C. (Procurement and Assignment Service Quotes Industrial Needs) 421
Selby, C. D., Detroit, Mich. (Industrial Health) 1
Selby, C. D., Detroit, Mich. (You May Call It the Indiana Plan) 434
Smith, Fred M., Iowa City, Iowa (Treatment of Coronary Thrombosis) 59
Spolyar, Louis W., and Ferree, John W., Indianapolis (Some Occupational Diseases Associated with the War Production Program) 402
Stahl, E. T., Lafayette (Adequate Internal Fixation of Fractures) 702
Stump, Albert, Indianapolis (Army and Navy Physicians Under Soldiers' and Sailors' Civil Relief Act of 1940) 95
Stump, Albert, Indianapolis (Law Pertaining to Occupational Diseases) 438

Stump, Albert, Indianapolis (Some Problems of Physicians Arising Out of War Conditions) 534
Swan, John R., Indianapolis (Complications of Mastoiditis) 9

Townsend, James G., Bethesda, Md. (Public Health Officer and Physician Must Work Together) 403
Townsend, James G., Bethesda, Md. (The Role of the General Practitioner in the Present Industrial Hygiene Program) 603

Van Buskirk, E. L., Lafayette (Trachoma and Follicular Conjunctivitis) 243
Voyles, C. F., Indianapolis (Rational Use of Physical Medicine) 148

Welborn, Mell B., Evansville (The Treatment of Burns) 363
Wells, Milo C., Anderson (Inflammatory Swelling of the Eyelids) 252
Weyerbacher, A. F., and Bowman, George W., Indianapolis (Report on Hot Springs Conference) 717
Whitehead, J. M., Indianapolis (Anesthetic Agents and Anesthetic Failures) 74
Wilder, Gordon B., Anderson; Ritchey, J. O., Indianapolis; Giordano, Alfred S., South Bend, and Dodds, Wemple, Crawfordsville (The Clinical Application of the Newer Laboratory Procedures as Pertains to the Man in General Practice—Panel Discussion) 17
Wood, Paul M., New York, N.Y. (Facts and Fallacies Concerning Modern Anesthesia) 69
Woolsey, R. Dean, and Klemme, Roland M., Saint Louis, Mo. (Multiple Subcortical Clots with Cerebral Melanomata) 566
Word, Buford; Reed, William C., and Leone, George, Camp Shelby, Miss. (A Modern Method of Managing Acute Appendicitis with Rupture and Generalized Peritonitis) 307

Yonkman, Fredrick F., Detroit, Mich. (Emergency Drugs in General Practice) 210

SPECIAL ARTICLES

Agents, Chemical Warfare (Reference and Training Chart), Office of Civilian Defense 283
American Medical Association, A Summary of the Activities of the House of Delegates of the, at Its Meeting in Atlantic City, June 8-11, 1942 (Cameron) 379
American Medical Association Convention at Atlantic City, Notes on the 1942 (Casper) 581
Assignment and Procurement of Indiana Physicians 37
Assignment of Physicians, Procurement and (Bird) 327
Authors, Some Early American Medical (Kiser) 97, 165, 226, 280, 332

Cancer, With Your Help We Shall be Victorious in Our Fight Against (Little) 225
Central Office of the Indiana State Medical Association, The Beginning of the (Schortemeier) 42
Chemical Warfare Agents (Reference and Training Chart), Office of Civilian Defense 283
Children, Special Health Services, Division of Services for Crippled, Indiana State Department of Public Welfare for Children Afflicted with Acute or Chronic Infantile Paralysis (Mettel) 714
Child-Health Conferences, Prenatal Clinics, and Home Delivery Nursing Services in Indiana—Indiana State Board of Health, Organization of 163
Civilian Health and the Shortage of Doctors (Jackson) 437
Commissions to Physicians, New Regulations Concerning the Granting of 580
Conference, Report on Hot Springs (Bowman-Weyerbacher) 717
Convention Notes 630

Defense and Welfare Day (Bird) 40
Doctor, Soldier and Bibliophile Honored (Kibby) 276

Functions of Committee on the Allocation of Medical Personnel, Procurement and Assignment Service for Physicians, Dentists and Veterinarians (Laphan) 411
Floyd County Emergency Medical Service Has Been Developed, How (Hauss) 642

Hawaii, War Came to (Reprinted from Hawaii Medical Journal) 279
Heroes, Indiana's Medical Martyrs and (Rice) 528
Hershey, General Lewis B. 34
Home Delivery Nursing Services in Indiana—Indiana State Board of Health, Organization of Child-Health Conferences, Prenatal Clinics, and 163
Hot Springs Conference, Report on (Bowman-Weyerbacher) 717

Indiana Plan, You May Call It the (Selby) 434
Indiana's Medical Martyrs and Heroes (Rice) 528
Industrial Activities of the Surgeon General's Office (Lanza) 416
Industrial Health, Highlights of the Meeting of the Committee on 641
Industrial Health in Wartime (Peterson) 410
Industrial Needs, Procurement and Assignment Service Quotes (Seeley) 421
Industry, Medical Care for Millions of People in (Keller) 436
"Information Please" on War Service 162

Law Pertaining to Occupational Diseases (Stump) 438

Martyrs and Heroes, Indiana's Medical (Rice) 528
Maternity Homes and Hospitals in Indiana, Report of (Jewett) 382
Medical Care for Millions of People in Industry (Keller) 436
Medical Care, Plans to Meet Need for 648
Medical Service, Emergency 93
Membership Roster for 1942 726
Milk Station, Indiana's Human, St. Margaret's Hospital Guild 43
Mobilization and Preparedness (Bird) 720
Mortality, Maternal, in Indiana for the Year 1941 (Huber) 330
Mortality, Causes of Neonatal, in Indiana for 1941 (Jewett) 327

National Emergency, Recommendations to All Physicians with Reference to the (Seeley) 92
Nurses, Military Need for (Adams) 640
Nursing Services in Indiana—Indiana State Board of Health, Organization of Child-Health Conferences, Prenatal Clinics, and Home Delivery 163
Notice, Special, from Selective Service Headquarters and the Indiana State Board of Health 386

Occupational Diseases, Law Pertaining to (Stump) 438

Pharmacist and VD Control 722
Physical Examination by Local Selective Service Examiners (Lee) 636
Physician in Industry, The (Paullin) 412
Physicians Arising Out of War Conditions, Some Problems of (Stump) 534
Physicians, Army and Navy, Under Soldiers' and Sailors' Civil Relief Act of 1940 (Stump) 95
Physicians, New Regulations Concerning the Granting of Commissions to 580
Physicians to Meet the Need of the Armed Forces (Bird) 536
Physicians' Response to the Armed Forces 719
Preparedness, Mobilization and (Bird) 720
President's Page: 36, 91, 161, 222, 275, 326, 378, 433, 527, 579, 635 and 713
Problems of Physicians Arising Out of War Conditions, Some (Stump) 534

Proclamations by the President of the United States of America ---- 223
Procurement and Assignment Committee Meeting, Gleanings of the ---- 637
Procurement and Assignment of Indiana Physicians 37
Procurement and Assignment of Physicians (Bird) 327
Procurement and Assignment Service Quotes Industrial Needs (Seeley) ---- 421
Public Health Officer and Physician Must Work Together (Townsend) ---- 403

Recommendations to All Physicians With Reference to the National Emergency (Seeley) ---- 92
Recruiting Board, Full-time, Withdrawn (Bird) ---- 442

Secretaries' Conference ---- 35
Security for America and for Yourself, United States Treasury Department Urges That You Invest in ---- 224
Selective Service Examiners, Physical Examinations by (Lee) ---- 636
Soldiers' and Sailors' Civil Relief Act of 1940, Army and Navy Physicians Under ---- 95
Surgeon General's Office (Lanza) ---- 416

Twenty-Five Years Ago ---- 44

United States Treasury Department Urges That You Invest in Security for America and for Yourself ---- 224
Under the Capitol Dome:
Accidents, Automotive ---- 537
Artificial Leg Project Ended ---- 441
Blind, Helping the ---- 586
Camp, New, Presents Problems ---- 168
Death Toll, Automobile ---- 229
Fever, Rocky Mountain Spotted ---- 389
Health Aide Resigns ---- 389
Health Problem, Transient Worker ---- 336
Immunization Survey, Results of ---- 102
Industrial Accident Records ---- 441
Jacobs, Miss, Appointed to Emergency Post ---- 586
Laboratory Work Increases, State ---- 101
Medical Attention, Youth Lacks ---- 45
Medical Board Changes ---- 282
Medical Board Examinations ---- 389
Medical Service, Emergency ---- 101
Mental Patients, Survey of ---- 281
Milk Condition Report ---- 586
Outlay for Health Increases, Indiana ---- 389
Pneumonia Serum Centers Eliminated ---- 389
Population Grows Older, Indiana's ---- 167
Preview of State Board Report ---- 723
Prison Inmates Victims of Accidents ---- 441
"Radioclast" Petition Heard ---- 282
Red Cross Blood Donor Center ---- 649
Rehabilitation, Vocational, of the Physically Handicapped ---- 45
School Health Bulletins ---- 102
School Health Course Drafted ---- 45
Sheppard Goes to Red Cross ---- 650
State Board Examination ---- 282
State Board Will Give Two Examinations ---- 650
State Health Board Changes ---- 537
Swimming Pool Warning ---- 389
Tularemia, Public Awake to Danger of ---- 46
Tularemia Research Project ---- 229
VD Control, The Pharmacist and ---- 722
Voice of Medicine:
Cigarette Smoking ---- 101
War Service, "Information Please" ---- 162
Wartime Medicine, Thoughts About Problems of (Holmblad) ---- 409
Welfare Day, Defense and (Bird) ---- 40
Welfare, Indiana State Department of Public, for Children Afflicted with Acute or Chronic Infantile Paralysis, Special Health Services of Division of Services for Crippled Children (Mettel) ---- 714
What Went On During World War I
169, 231, 278, 331, 388, 440, 539, 585 and 725

DEATHS

Allen, George Brannan, South Bend ---- 103
Ambrose, Uryal C., Cumberland ---- 595

Barnett, Walter Wynn, Fort Wayne ---- 46
Beck, Condie Butler, Rising Sun ---- 170
Boulden, Melville F., Frankfort ---- 284
Brooks, Emery W., Muncie ---- 284
Brown, Benjamin A., Indianapolis ---- 540
Bruner, Mary Ladd, Greenfield ---- 741
Buchanan, William Austin, Hammond ---- 236
Byrns, James D., Mitchell ---- 170

Carson, Samuel L., Vincennes ---- 46
Casebeer, Ithimer M., Clinton ---- 337
Chance, Bert V., Windfall ---- 650
Clifford, Joseph Warrick, Worthington ---- 284
Conley, Leander H., Gas City ---- 103
Cook, John H., Terre Haute ---- 650
Cooper, James R., Richmond ---- 170
Cowan, Edward H., Crawfordsville ---- 540

Davenport, Isaac W., Sheridan ---- 46
Dillinger, Joseph R., French Lick ---- 595
Dooley, Rufus L., Montezuma ---- 170

Eberle, Julia C., Indianapolis ---- 390
Emmick, Thomas C., Mount Vernon ---- 390

Finch, Gilbert R., Centerville ---- 741
Fisher, Royal S., Arcadia ---- 595
Fleener, Otto F., Hammond ---- 442

George, Walter R., Indianapolis ---- 337
Gilbert, A. K., Clayton ---- 170
Gill, John G., Kendallville ---- 284
Gist, Lemuel I., Coldwater, Michigan ---- 236
Gobbel, Fred R., English ---- 390
Grosvenor, Elmer B., Richmond ---- 284
Grubbs, Samuel B., Carmel ---- 650
Gwaltney, Samuel P., Rockport ---- 390

Hackley, Robert P., Medaryville ---- 595
Hendricks, Walter E., Martinsville ---- 650
Hoover, Loren, Decker ---- 390
Hutchins, Frank F., Indianapolis ---- 236

Inks, Charles A., Nappanee ---- 442
Irwin, Henry Wilbur, Indianapolis ---- 170

Kendall, Perry Arnold, Crothersville ---- 170
Kerr, John Francis, Jr., Indianapolis ---- 540
Kleiser, Arthur J., Waveland ---- 595
Koons, H. H., New Castle ---- 284
Kreider, Martin K., Goshen ---- 337
Kveton, Emil Nicholas, Fort Wayne ---- 595

Lairy, Manson M., Lafayette ---- 337
LaSalle, Gilbert, Wabash ---- 103
Lawson, John E., Jeffersonville ---- 236
Leffel, John S., Connersville ---- 337
Lewis, Miles J., Marion ---- 104
Liston, Merrill E., South Bend ---- 337
Long, Enoch E., Shoals ---- 650
Loop, Aubrey L., Crawfordsville ---- 650
Lueders, Albert G., Fort Wayne ---- 390
Lyons, Martha Brewer, South Bend ---- 170
Lyons, Marcus W., Jr., South Bend ---- 390

Martin, John Albert, Indianapolis ---- 236
Martz, Christian, Fort Wayne ---- 390
Masters, Luella M., Thorntown ---- 741
Mattox, Ernest L., Terre Haute ---- 741
McBride, James Lowry, Zanesville ---- 46
McCurdy, Olive B. C., Indianapolis ---- 650
McGowan, John W., Oakland City ---- 284
McFarlin, Charles C., Westport ---- 284
McMahan, Adah, Lafayette ---- 442

Mentzer, Simon E., Monroeville 104
Miller, John Crede, Anderson 540
Morris, John L., Princeton 337

Overman, Charles J., Marion 741

Pettijohn, Orlando B., Noblesville 540

Ragan, Charles E., Terre Haute 540
Reglien, Norman C., Michigan City 650
Roope, Alfred P., Columbus 741
Row, George S., Indianapolis 442
Rubsam, Joseph, Logansport 595

Sandy, George Lawrence, Indianapolis 103
Shanahan, Alva A., Marion 540
Shobe, William Alvin, Ligonier 103
Short, Richard B., Bedford 390
Showalter, Joseph Edwin, Waterloo 46
Sowder, Charles R., Indianapolis 650
Spencer, Mavity J., Indianapolis 46
Steininger, Joseph F., Gary 442
Steinmetz, Henry G., Logansport 337
Sturdevant, Joel D., Noblesville 595

Terrell, Beecher Johnson, Indianapolis 103
Thayer, Marion N., Linton 390
Thomas, Albert A., Indianapolis 540
Travis, Richard Churchill, Indianapolis 46

Walther, Joseph E., Rushville 595
Ward, Clarence V., Indianapolis 46
Washburn, D. Manners, New Richmond 103
White, Benjamin S., Greensburg 442
Williams, William R., Greenville 46
Williamson, Alvis A., Michigantown 442

Young, Alva A., Hammond 595

BOOKS

(Acknowledged and Reviewed)

AUTHORS

Alexander, Harry L. Synopsis of Allergy 58
Amberson, J. Burns; Dick, George F.; Minot, George R.; Castle, William B.; Stroud, William D., and Eusterman, George R. The 1941 Year Book of General Medicine 58
Anderson, Dwight, and Baylous, Marguaret. When Doctors Are Rationed Dec. xxi
Anderson, W. A. D. Synopsis of Pathology Oct. xix

Baylous, Marguaret, Anderson, Dwight. When Doctors Are Rationed Dec. xxi
Blair, Vilray P., and Byars, Louis T. Cancer of the Face and Mouth 450
Boas, Ernst P. Treatment of the Patient Past Fifty 58
Byars, Louis T., and Blair, Vilray P. Cancer of the Face and Mouth 450

Carden, Grace, and Hawley, Estelle E. The Art and Science of Nutrition June xxii
Carter, Langley, and Porter, William E. Management of the Sick Infant and Child (Sixth Revised Edition) June xxii
Castle, William B.; Dick, George F.; Amberson, J. Burns; Minot, George R.; Stroud, William D., and Eusterman, George R. The 1941 Year Book of General Medicine 58
Chalmers, Leona W. Woman's Personal Hygiene—Modern Methods and Appliances Feb. xxiii
Clapesattle, Helen. The Doctors Mayo 58
Columbia University Press. Directory of Medical Specialists 450
Culbertson, James T. Medical Parasitology Dec. xxi
Curtis, Donald A., and Wooders, Marie A. Emergency Care Oct. xx

Davison, Forrest Ramon. Synopsis of Materia Medica, Toxicology and Pharmacology July xxii

DeBakey, Michael, and Kilduffe, Robert A. The Blood Bank and the Technique and Therapeutics of Transfusions 186
Dick, George F.; Amberson, J. Burns; Minot, George R.; Castle, William B.; Stroud, William D., and Eusterman, George R. The 1941 Year Book of General Medicine 58
Dieckmann, William J. The Toxemias of Pregnancy 58, June xxii
Dodson, Austin I. Synopsis of Genitourinary Diseases (Third Edition) 58, 186

Geiger, J. C. The 1941 Year Book of Public Health Mar. xxii
Gilbert, Albert J. Essentials of Pharmacology and Materia Medica for Nurses 450
Goldhamer, Karl. X-Ray Therapy of Chronic Arthritis Mar. xxi
Grollman, Arthur. Essentials of Endocrinology Mar. xxii

Haden, Russell L., and Thomas, J. Warrick. Allergy in Clinical Practice Feb. xxiii, May xxi
Hawley, Estelle E., and Carden, Grace. The Art and Science of Nutrition June xxii
Herrmann, George R. Synopsis of Diseases of the Heart and Arteries (Second Edition) 58
Hooker, Sanford B., and Karsner, Howard T. The 1941 Year Book of Pathology and Immunology 186

Jordan, Edwin P. Standard Nomenclature of Disease and Standard Nomenclature of Operations Oct. xx

Karsner, Howard T., and Hooker, Sanford B. The 1941 Year Book of Pathology and Immunology 186
Kilduffe, Robert A., and DeBakey, Michael. The Blood Bank and the Technique and Therapeutics of Transfusions 186

Lichtwitz, Leopold. Nephritis May xxi
Lundy, John S. Clinical Anesthesia Dec. xxi
Lynch, Theresa I. Communicable Disease Nursing 239

McBride, Earl D. Disability Evaluation (Third Revised Edition) 450
Mettler, Fred A. Neuroanatomy Feb. xxiii, May xxi

Neal, Josephine B. Encephalitis—A Clinical Study 186, July xxii
New York Academy of Medicine Lectures to the Laity. The March of Medicine Feb. xxiii

Painter, Charles F. The 1941 Year Book of Industrial and Orthopedic Surgery Feb. xxiii
Patton, E. White, and Youmans, John B. Nutritional Deficiences—Diagnosis and Treatment 58
Porter, Langley, and Carter, William E. Management of the Sick Infant and Child (Sixth Revised Edition) June xxii
Pugh, Winfield Scott. War Medicine Sept. xxvi

Raney, Richard Beverly. A Primer on the Prevention of Deformity in Childhood 239
Ray, Marie Beynon. Doctors of the Mind Dec. xxi
Reiner, Miriam. Manual of Clinical Chemistry Oct. xx
Ritchie, Wallace P. Essentials of General Surgery 239

Schauffler, Goodrich C. Pediatric Gynceology May xxi
Sherwood, Noble Pierce. Immunology (Second Edition) 58
Smith, Ernest V. The Making of a Surgeon Dec. xxi
Spink, Wesley W. Sulfanilamide and Related Compounds in General Practice Dec. xxi

Tassman, I. S. The Eye Manifestations of Internal Diseases June xxii
Taylor, F. Sherwood. The Conquest of Bacteria 239
Thewlis, Malford W. The Care of the Aged-Geriatrics (Third Edition) Jan. xxi

Thewlis, Malford W. The Care of the Aged-Geriatrics (Fourth Edition)—Sept. xxvi
Thomas, J. Warrick, and Haden, Russel L. Allergy in Clinical Practice—Feb. xxiii, May xxi

von Witzleben, Henry D. Methods of Treatment in Post-encephalitic Parkinsonism 239
Voronoff, Serge. From Cretin to Genius—Dec. xxi

Wooders, Marie A., and Curtis, Donald A. Emergency Care—Oct. xx

Yater, Wallace Mason. Symptom Diagnosis (Fourth Edition) 239
Youmans, John B., and Patton, E. White. Nutritional Deficiences—Diagnosis and Treatment 58

SUBJECTS

(r—book reviewed)

Aged, The Care of the (Geriatrics)—Third Edition (Thewlis), C. V. Mosby Co. (r)—Jan. xxi
Aged, The Care of the (Geriatrics)—Fourth Edition (Thewlis), C. V. Mosby Co.—Sept. xxvi
Allergy in Clinical Practice (Haden-Thomas), J. B. Lippincott Co. (r)—Feb. xxiii, May xxi
Allergy, Synopsis of (Alexander), C. V. Mosby Co. 58
Anesthesia, Clinical (Lundy), W. B. Saunders Co.—Dec. xxi
Arteries, Synopsis of Diseases of the Heart and (Second Edition) (Herrmann), C. V. Mosby Co. (r) 58
Arthritis, X-Ray Therapy of Chronic (Goldhamer), Radiologic Review Publishing Co. (r)—Mar. xxi

Bacteria, The Conquest of (Taylor), The Philosophical Library and Alliance Book Corporation 239
Blood Bank, The, and the Technique and Therapeutics of Transfusions (Kilduffe-DeBakey), C. V. Mosby Co. 186

Cancer of the Face and Mouth (Blair-Byars), C. V. Mosby Co. (r)—Aug. xix
Care, Emergency (Wooders-Curtis), F. A. Davis Co.—Oct. xx
Chemistry, Manual of Clinical (Reiner), Interscience Publishers, Inc. (r)—Oct. xx
Cretin to Genius, From (Voronoff), Alliance Book Corp. (r)—Dec. xxi

Deformity in Childhood, A Primer on the Prevention of (Raney), National Society for Crippled Children, Inc. 239
Diagnosis, Symptom (Fourth Edition) (Yater), D. Appleton-Century Co. 239
Disability Evaluation (Third Revised Edition) (McBride), J. B. Lippincott Co. 450
Doctors Are Rationed, When (Anderson), Coward-McCann, Inc.—Dec. xxi
Doctors of the Mind (Ray), Little, Brown & Co.—Dec. xxi

Encephalitis—A Clinical Study (Neal), Grune & Stratton, Inc. (r)—186, July xxii
Endocrinology, Essentials of (Grollman), J. B. Lippincott Co. (r)—Mar. xxii
Eye Manifestations of Internal Diseases, The (Tassman), C. V. Mosby Co.—June xxii

Genitourinary Diseases, Synopsis of (Third Edition) (Dodson), C. V. Mosby Co. (r)—Jan. 58, 186
Genius, From Cretin to (Voronoff), Alliance Book Corp. (r)—Dec. xxi
Geriatrics, The Care of the Aged (Third Edition) (Thewlis), C. V. Mosby Co.—Jan. xxi
Geriatrics, The Care of the Aged (Fourth Edition) (Thewlis), C. V. Mosby Co.—Sept. xxvi
Gynecology, Pediatric (Schauffler), The Year Book Publishers, Inc.—May xxi

Heart and Arteries, Synopsis of Diseases of the (Second Edition) (Herrmann), C. V. Mosby Co. (r) 58
Hygiene, Woman's Personal, Modern Methods and Appliances (Chalmers), Pioneer Publications, Inc.—Feb. xxiii

Immunology (Second Edition) (Sherwood), C. V. Mosby Co. 58
Immunology, The 1941 Year Book of Pathology and (Karsner-Hooker), The Year Book Publishers, Inc. 186
Industrial and Orthopedic Surgery, The 1941 Year Book of (Painter), The Year Book Publishers, Inc.—Feb. xxiii

Management of the Sick Infant and Child (Sixth Revised Edition) (Porter-Carter), C. V. Mosby Co.—June xxii
Materia Medica for Nurses, Essentials of Pharmacology and (Gilbert), C. V. Mosby Co. (r)—Aug. xx
Materia Medica, Synopsis of, Toxicology, and Pharmacology (Second Edition) (Davison), C. V. Mosby Co.—July xxii
Mayo, The Doctors (Clapesattle), University of Minnesota Press 58
Medical Service, Physicians' Reference Book of Emergency, E. R. Squibb & Sons 450
Medicine, The March of (New York Academy of Medicine Lectures to the Laity), Columbia University Press—Feb. xxiii
Medicine, The 1941 Year Book of General (Dick-Amberson-Minot-Castle-Stroud-Eusterman), The Year Book Publishers, Inc. 58
Medicine, War (Pugh), The Philosophical Library—Sept. xxvi

Nephritis (Lichtwitz), Grune & Stratton—May xxi
Neuroanatomy (Mettler), C. V. Mosby Co. (r) Feb. xxiii, May xxi
Nomenclature, Standard, of Disease and Standard Nomenclature of Operations (Jordan), American Medical Association (r)—Oct. xx
Nursing, Communicable Disease (Lynch), C. V. Mosby Co. 239
Nutritional Deficiencies—Diagnosis and Treatment (Youmans-Patton), J. B. Lippincott Co. 58
Nutrition, The Art and Science of (Hawley-Carden), C. V. Mosby Co. (r)—June xxii

Orthopedic Surgery, The 1941 Year Book of Industrial and (Painter), The Year Book Publishers, Inc.—Feb. xxiii

Parasitology, Medical (Culbertson), Columbia University Press—Dec. xxi
Parkinsonism, Methods of Treatment in Post-encephalitic (von Witzleben), Grune & Stratton, Inc. 239
Pathology and Immunology, The 1941 Year Book of (Karsner-Hooker), The Year Book Publishers, Inc. 186
Pathology, Synopsis of (Anderson), C. V. Mosby Co.—Oct. xix
Pharmacology and Materia Medica for Nurses, Essentials of (Gilbert), C. V. Mosby Co. (r)—Aug. xx
Pharmacology, Synopsis of Materia Medica, Toxicology, and (Second Edition) (Davison), C. V. Mosby Co.—July xxii
Pregnancy, The Toxemias of (Dieckmann), C. V. Mosby Co. (r)—Jan. 58, June xxii
Public Health, The 1941 Year Book of (Geiger), The Year Book Publishers, Inc. (r)—Mar. xxii

Specialists, Directory of Medical, Columbia University Press (r)—Aug. xix
Sulfanilamide and Related Compounds in General Practice (Spink), The Year Book Publishers, Inc.—Dec. xxi
Surgeon, The Making of a (Smith), Berndt Printing Co.—Dec. xxi

Surgery, Essentials of General (Ritchie), C. V. Mosby Co. (r) 239

Toxicology, and Pharmacology, Synopsis of Materia Medica (Second Edition) (Davison), C. V. Mosby Co. July xxii

Transfusions, The Blood Bank and the Technique and Therapeutics of (Kilduffe-Debakey), C. V. Mosby Co. 186

Treatment of the Patient Past Fifty (Boas), The Year Book Publishers, Inc. 58

SOCIETIES AND INSTITUTIONS

American Association of Eye, Ear, Nose and Throat Society Secretaries, Annual Meeting of the 292

County Society Reports Jan. 53, Feb. 119, Mar. 183, Apr. 237, May 291, June 343, July xx, Aug. 450, Sept. xxvi, Oct. 598, Nov. 675, and Dec. xix

District Meetings and Reports:
- Second July xxi
- Fourth 56
- Seventh Dec. xx
- Eleventh July xxi, and Dec. xx
- Twelfth 56, July xxi

Indiana State Board of Health, Bureau of Communicable Diseases: Jan xxii, Feb. xxii, Mar. xxiii, Apr. xx, May xxii, June xxi, July xxii, Aug. xxiii, Sept. xxvi, Oct. 601 and Dec. xxii.

Indiana State Medical Association:
- Bureau of Publicity 51, 180
- Convention Program and Committee Reports 469
- Council, The, Report of First Meeting 657
- Council, The, Report of Second Meeting 659
- Executive Committee: Jan. 49, Mar. 177, May 288, July 397, Aug. 448, Oct. 596, and Dec. 740
- General Meetings, French Lick Session 674
- House of Delegates, French Lick Session 660, 667
- Section on Anesthesia 675
- Section on Medicine 675
- Section on Ophthalmology and Otolaryngology 674
- Section on Surgery 675
- Industrial Health, Committee on 181
- Ophthalmology and Oto-Laryngology, Annual Meeting of the Indiana Academy of 344
- Venereal Disease, Report of Committee on 342

Woman's Auxiliary to the Indiana State Medical Association: Jan. 56, Feb. 122, Mar. 185, Apr. 238, May 293, June 344, Oct. 599, Nov. 676, and Dec. xx

MISCELLANEOUS

News Notes 46, 104, 173, 232, 285, 338, 391, 443, 541, 587, 655, and 736

Indiana University News Notes Jan. 49, Feb. 107, Mar. 176, Apr. 235, May 287, July 396, Aug. 446, Sept. xxv, Oct. 594, and Dec. 738

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
ISSUED MONTHLY under Direction of the Council
OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 JANUARY, 1942 NUMBER 1

INDUSTRIAL HEALTH*

C. D. SELBY, M.D.†
DETROIT, MICHIGAN

Of all the absences that occur annually in industry about sixty per cent are caused by sicknesses and injuries, and practically all of these are from nonoccupational causes which are not at all related to employment. (The occupational injuries and diseases produce about one per cent of the total lost-time cases.) In the aggregate, these absences amount to such an extent, in days of lost and unproductive time, that it creates an important national defense problem and, being nonoccupational, the responsibility for their control is in the fields of public health, preventive medicine, and medical practice.

Industrial medicine recognizes this fact. It is not trying to shift any responsibility. It merely wishes to obtain the cooperation of all doctors, whether they be in public health, research, general practice or special practice, in an effective health maintenance program for our national defense workers in all industries, large and small.

Public health is concerned because more than one-third of the sickness in industrial workers is due to the respiratory diseases, most of which are infections. This is decidedly a public health problem.

Preventive medicine is concerned because it is chiefly through research that the major accomplishments in controlling diseases are effected. Witness the results of the sulfa group on pneumonias, Streptococcus infections, et cetera.

Medical practitioners, whether they be in general practice or in special practice, are concerned because they treat the workers who are disabled by sickness, and if by early and effective treatment they can reduce each disability one or two days their collective accomplishment will be an important contribution to national defense.

Since its organization in December, 1937, the Council on Industrial Health of the American Medical Association has foreseen great opportunities for general medical practitioners to be of service to industry beyond the care of occupational injuries and diseases, and it has endeavored to prepare the profession to meet these opportunities in a creditable fashion. Among the early discoveries of the Council were these amazing facts:

1. Medical service in industry is predominantly in the hands of the general medical practitioners.
2. Full-time industrial physicians are relatively few, being employed mostly in large establishments and engaged chiefly in applying measures for the prevention of occupational diseases and the promotion of health.
3. Opportunities of a comparable nature can be found in small manufacturing establishments as well as large industries, and they are available to the general medical profession.
4. General practitioners have to a considerable degree failed to see this opportunity, and have limited their industrial activities to the treatment of occupational injuries and diseases.

Realizing the importance of manufacturing in relation to national defense, the health of the workers in relation to defense manufacturing and the medical profession in relation to the health of the workers, the Council of National Defense of the Federal Government has designated the Federal Security Administrator as coordinator of all health, medical, welfare, and related defense activities. He was authorized, with the approval of the President, to appoint such advisory committees and subcommittees as he might find necessary or desirable to assist him in his coordinating duties. One of such committees thus appointed is known as the Subcommittee on Industrial Health and Medicine, and it functions through the Health and Medical Committee as an advisor to the coordinator in matters of industrial health and medical activities relating to national defense. This

* Read before the second General Meeting at the ninety-second annual session of the Indiana State Medical Association at Indianapolis, September 25, 1941.

† General Motors Corporation, Detroit, Michigan.

committee is pursuing its work of coordination with two objectives in view: (1) the integration of all federal, state and volunteer organizations concerned in industrial health, to the end that an organized program may be applied to the national defense industries; and (2) the promotion of a demand for more complete health service in small as well as large defense industries. The latter objective points directly toward the general medical profession and offers greater opportunities to those who serve industry even on a part-time or call basis. Openings for full-time qualified industrial doctors are increasing and already there appears to be a shortage, brought on, no doubt, by military activities.

Plans are already under way for the training of the doctors who give promise of ability in this direction and who are willing to prepare themselves for service on a full-time basis. The demand for part-time doctors, who are usually general medical practitioners, is also growing and it is here that those who serve industry on a call basis are most likely to find their opportunities if they are prepared to do something more than treat occupational injuries and occupational diseases.

This class of industrial service need not interfere greatly with private practice. There is nothing new about it except that in the past it has not usually included physical examinations, safe placement of applicants for work, etc., being limited to the care of compensation cases. As industry is now expecting more and the Subcommittee on Industrial Health and Medicine is urging more, the Council on Industrial Health of the American Medical Association recommends that county and state medical societies give local postgraduate instruction to the physicians who are interested, especially those who are doing part-time work on a limited scale, and the general practitioners who would like to do part-time work. An outline of such a course can be obtained by application to the Secretary of the Council, Dr. C. M. Peterson, and there are no doubt enough able industrial physicians in your city to put on such a course in an attractive and interesting manner.

A course of this nature will prepare, to a considerable extent, the general medical practitioners for a service in industry which compares favorably with that of the full-time service of large manufacturing establishments. Whether it be full- or part-time, the service is based on three fundamental principles:

1. Prevention of disease or injury in industry by establishing proper medical supervision over industrial materials, processes, environments, and workers.

2. Health conservation of workers through physical supervision and education.

3. Medical and surgical care to restore health and earning capacity as promptly as possible following industrial accident or disease.

In applying the foregoing principles, the physician in industry has certain essential duties to perform.

DUTIES OF THE PHYSICIAN IN INDUSTRY

Prevention—The physician should by regular inspection acquaint himself with all materials and processes used in the working environment over which he has supervision, to the end that he may recommend the appropriate protection of employees from conditions actually or potentially harmful.

Industrial Physical Examinations—Preemployment physical examinations should be complete. They should be used only for the purpose of assisting the employer to provide safe and healthful employment for the prospective workman.

Periodic physical examinations should be complete enough to provide positive health protection for the workmen and to safeguard the public welfare. The frequency of such physical examinations must be determined by the physician in accordance with specific requirements.

In the interest of completeness and uniformity, physical examination forms are recommended. Personal records of this character are confidential and should always be kept in the custody of the medical department. Access to these records should be granted only upon the request or consent of the examinees.

The examining physician should acquaint the examinee with the findings of the examinations and in conditions requiring correction he should refer the patient and convey the information to the physician of the worker's choice.

Health Education—The plant physican should take advantage of every opportunity to give beneficial instruction to the workmen in hygienic living, whether he is in or out of the industrial environment.

Medical and Surgical Care—*Treatment of compensable injuries and diseases.* The disabled worker should be permitted to choose his own physician from those who are competent to supply the required services. Competence should be determined by professional standards only.

Treatment of noncompensable injuries and diseases. Treatment of injuries or diseases not industrially induced is a function for the private medical practitioner from which the industrial physician should abstain except in the following cases:

A. *Minor ailments.* The physician in industry may treat minor physical disorders which temporarily interfere with an employee's comfort or ability to complete a shift, and for the relief of which he may need immediate medical attention.

B. *First aid for urgent sickness.* The physician in industry should employ such measures as the emergency dictates in all cases of urgent sickness occurring during working hours and on the working premises until such time as prompt notification of the family physician relieves him of further responsibility.

C. *Rehabilitation after sickness and injury.* The physician in industry can properly assume responsibility for the phases of rehabilitation after disability, industrially or otherwise induced, which make the best progress under controlled working conditions.

GENERAL RELATIONSHIPS

With the Employer—Adequate industrial medical supervision requires full-or part-time services of physicians, depending on size of plant, location, prevalence of dangerous health exposures, and other considerations. In every case a physician's relation to industry is improved if he does not solicit the appointment. Written contracts between a physician and an employer are usually unnecessary. If a contract seems desirable, a copy should be filed with the local county medical society.

With the Employe—Adequate industrial health conservation depends upon the cooperation from the workmen. They must, therefore, receive the same courtesy and professional honesty as private patients.

Industrial physicians should not treat employes for noncompensable disability nor assume any obligation, contractual or otherwise, for the diagnosis and treatment of dependents of employes, or members of plant administrative or advisory staffs, except when independent private facilities are not conveniently accessible.

With Industrial Nurses and Nonprofessional Assistants—The industrial physicians should be responsible for the proper instruction and subsequent activities of nurses and other assistants. Their functions should be described in clear and comprehensive written orders posted in the medical department. There should be no delegation of services requiring medical attention.

With Consultants—Assistance should be asked of consultants in industrial medicine, surgery or hygiene, or in the clinical specialties whenever the interests of the workmen demand it.

In the control of the working environment, the same consulting arrangements should be entered into with industrial hygienists and safety engineers.

With Official Health Agencies—The physician in industry should consider himself as a deputy health officer in practice if not in fact. Assistance is available from bureaus of industrial hygiene in state and city governments for controlling healthful working conditions. In return, the industrial physician should cooperate by accumulating and reporting compilations of dependable data on the relation of occupation to morbidity and mortality.

SUMMARY

1. The health of the workers in defense industries is important to national defense.

2. The problem of maintaining their health is the responsibility of the medical profession.

3. This responsibility is recognized by the Council on Industrial Health of the American Medical Association and by the Federal Government.

4. Special courses on industrial health are recommended for general practitioners in order that the profession may meet the responsibility.

5. An outline is given of the fundamentals of industrial health practice.

ABSTRACT: ARMY AND NAVY SEEKING 200,000 UNITS OF BLOOD PLASMA WITHIN NEXT YEAR

The surgeon generals of the Army and Navy have asked that two hundred thousand units of blood plasma (the liquid portion of the blood) be processed within the next year, the final product to be equally distributed between their two medical departments, William DeKleine, M.D., Washington, D. C., reports in a discussion of the "Red Cross Blood Procurement Project for the Army and Navy," published in the Medical Preparedness Section of *The Journal of the American Medical Association* for November 15.

Dr. DeKleine explains that the two surgeon generals last January requested the American Red Cross and the Division of Medical Sciences of the National Research Council to organize a cooperative blood collecting project for the purpose of meeting the need for a large reservoir of blood plasma as a preparedness measure for a national emergency. "The Red Cross," he says, "was asked 'to secure volunteer donors in a number of the larger cities of this country, to provide the necessary equipment, to transport the drawn blood rapidly to a processing center, and to arrange for separating the plasma and for storing the resulting product in refrigerated rooms.'

"The medical division of the Research Council was asked 'to assume the general supervision of the professional services involved in this collection and storage of plasma and to provide competent professional personnel both for a national supervising group and for the local collecting agencies.'"

A collection unit was organized in New York City and the first blood drawn about February 1. Similar collection centers have since been established in Philadelphia, Baltimore, Buffalo and Rochester, N. Y.

The project, he explains, is an outgrowth, in part at least, of a similar project in which a quantity of liquid plasma was collected for shipment to Great Britain. The experience gained from this project leads to Dr. DeKleine to believe that liquid plasma is not satisfactory for military purposes. Accordingly dried plasma is being used in the American project.

"The original request of the surgeon generals," Dr. DeKleine explains, "called for ten thousand units of dried plasma—a unit being equivalent to 250 cc. of liquid plasma dried in the container in which it is finally dispensed. The total number of units requested is therefore equivalent roughly to that many donor bleedings.

"This quota has been more than completed. Fifteen thousand donor bleedings have been collected as of August 31, of which more than thirteen thousand units have actually been processed ready for transfusion. These are now being transferred to Navy ships where the emergency need appears to be the most urgent for the present. Some of the material will also be available for civilian catastrophies in which transfusions are necessary."

He explains that the request for two hundred thousand units for the next year has been approved for immediate action and that it calls for the rapid expansion of procurement centers in several of the larger cities of the country.

"The present rate of collection at the five centers mentioned," he says, "is about one thousand bleedings a week. This rate will have to be quadrupled if the new quota is to be completed in the specified time."

POLYCYSTIC DISEASE OF THE LIVER*

WILLIAM DEPREZ INLOW, M.D.
NORMAN F. RICHARD, M.D.
SHELBYVILLE

Polycystic disease of the liver is rare. Its recognition, except at operation or necropsy, is difficult. Report of a case is justified if for no other reason than to remind the medical profession, tutored too exclusively concerning echinococcus disease, of its existence.

It is not our purpose to enter into a discussion of all varieties of cystic disease of the liver. Suffice it to say that cysts may be divided primarily into the parasitic and the nonparasitic type. Of the various forms of the latter variety, chiefly two concern the surgeon: one in which there is formation of a tumor in the liver, represented by a single cyst or conglomerate mass of cysts; and the other a true polycystic disease.[1] These are not as disparate as they seem, the division being dictated more by clinical than by pathologic considerations. Single cysts come more often within the surgeon's ken and have been more adequately reported in recent American surgical literature.[2]

Case Report

History: The patient was a white female, aged 60, who entered the clinic November 8, 1940, complaining of tired feeling, shortness of breath, swelling of the ankles, cough, fulness in the abdomen and increased thirst.

The tired feeling, cough, and dyspnea had been present for two years, and had become worse in the last three months. Six weeks before admission the patient began to notice fulness in her abdomen, but she felt no mass. This enlargement had been most noticeable in the preceding two weeks and had been associated with swelling of the ankles and increased shortness of breath. She stated that her abdomen had seemed to change shape, being at times larger in the vertical and at other times in the transverse diameter. She was unable to walk more than one hundred feet without sitting down to rest. She had had increased thirst for three years, less now than formerly. To have satisfied her craving would have required drinking a dozen glasses of water daily. Her past history was uneventful, for she had always enjoyed good health. Her mother died at the age of sixty-four of Bright's disease, and a sister died of cancer.

Physical Examination: Her temperature was 98° F., pulse rate 92, respiratory rate 22, blood pressure 186 systolic and 116 diastolic. Her weight was 150 pounds, whereas it had been 170 pounds. Percussion of the chest revealed slight dulness in the pulmonary bases, posteriorly. The point of maximal cardiac impulse was located in the sixth intercostal space at the anterior axillary line. There was a systolic blow at the mitral area. Occasional premature contractions were present. On abdominal palpation a large, firm, irregular, fluctuant mass, about the size of a small grapefruit, was felt occupying the right lower quadrant and umbilical area. The mass was tender to pressure and presented a sharp left border. It did not seem fixed to the parietes, and from the tympany elicited it was adjudged that loops of small bowel lay over it. There was no shifting dulness in the flanks. The edge of the liver was nodular and could be felt a hand's breadth below the right costal border. There was slight edema over the sacrum and moderate swelling of both ankles.

Laboratory and roentgenologic examinations: Study of the blood gave an erythrocyte count of 4,380,000, and a leukocyte count of 7,200. The hemoglobin was 88 per cent. A single urine specimen had a specific gravity of 1,010 and gave a marked albumin reaction; microscopic examination showed an occasional red blood cell and many pus cells. A roentgen ray film of the abdomen showed no demonstrable liver margin and no outline of the tumor mass. A film of the chest revealed the heart shadow to be widened, the silhouette being similar to that of a pericardial effusion, or that of myxedema. Flouroscopic studies of the stomach and of the colon showed nothing of importance other than that the stomach and the hepatic flexure were pushed inferiorly and to the left, with the colon skirting the mass in the midabdomen. The basal metabolic rate was minus nine per cent. A tentative diagnosis of cardiac decompensation, abdominal tumor with cystic degeneration, and malignant metastases in the liver was made, and abdominal exploration advised.

Operation: On November 20, 1940, the abdomen was opened under procaine anesthesia, with the administration of cyclopropane during the exploratory period. A middle right rectus incision was employed which later was extended superiorly.

* Presented before the Section on Surgery of the Indiana State Medical Association at the Indianapolis session, September 24, 1941.

[1] Albrittain, J. W., and Cornbrooks, E. I.: Polycystic Disease, *Bull. School Med. Univ. Maryland* **24**:121-131, (Oct.) 1939. Ritter, C.: Zur Diagnose und Therapie der Cystenleber, *Zentralbl. f. Chir.* **59**:15-24, (Jan. 2) 1932.

[2] Caylor, H. D.: Nonparasitic Cysts of Liver, *S. Clin. North America*, **9**:191-201, (Feb.) 1929. Davis, C. R.: Nonparasitic Cysts of Liver, *Am. J. Surg.* **35**:590-594, 1937. McCaughan, J. M., and Rassieur, L.: Nonparasitic Cysts of Liver; Report of Two Cases and Analysis of Literature, *Tr. West. S. A.* (1938) **48**:209-239, 1939. McGlannan, A.: Nonparasitic Cysts of Liver, *Ann. Surg.* **87**:844-847, (June) 1928. Montgomery, A. H.: Solitary Nonparasitic Cysts of Liver in Children, *Arch. Surg.* **41**: 422-435, (Aug.) 1940. Ochsner, E. H.: Unilocular Cyst of Liver, *Ann. Surg.* **107**:829-831, (May) 1938.

There was no excess of fluid in the peritoneal cavity. A mass was encountered to the right of and over the lower lumbar spine and brim of the pelvis. It was cystic, was about the size of a small grapefruit, and was loculate. Another mass was met on the left, lying retroperitoneally against the spine; it was flatter, firmer, and higher than the mass on the right. This mass also was thought to be cystic, its adjacency making the two of them seem like one mass. There was no involvement of the gastro-intestinal tract. The uterus was small and contained two small intramural fibroids. The liver was very large and was covered with adhesions which bled freely when separated. All of the liver seen or palpated consisted of a mass of cysts, varying in size from a pinhead to that of an egg. Some fluid was aspirated from one of the larger hepatic cysts, but no hooklets were reported found on microscopic examination. Fluid also was aspirated from the cystic mass in the lower right abdomen. A specimen of the liver was removed for biopsy, and the abdomen closed. The postoperative course was without incident.

Subsequent investigation and course: Study of the fluids removed revealed no bile pigment, no cholesterol, and no cellular elements; the fluid from the liver had a small amount of albumin and a urea content of 26.7 mg. per 100 cc.; and that from the mass in the lower right abdomen had a large amount of albumin and a urea content of 33 mg. per 100 cc. The specimen from the liver on section showed very little normal parenchymal tissue, the liver substance being replaced by numerous cysts, each lined with a single layer of flattened cuboidal epithelium and surrounded by fibrous tissue. (See Fig. 1.)

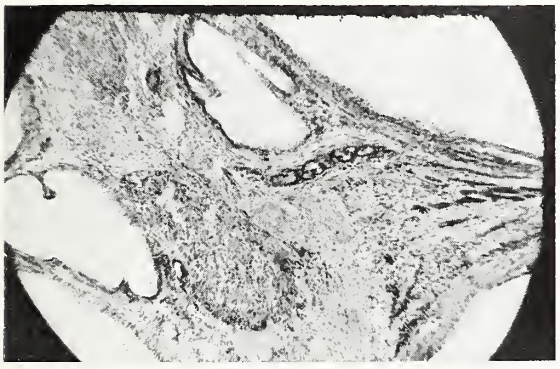


Figure 1. Photomicrograph of Polycystic Liver. X100.

At the time the abdomen was opened it was considered most likely that the condition was one of echinococcus disease, and it was only after abdominal closure and upon receipt of the microscopic report on the fluid from the liver cysts that the true nature of the condition was realized. It was then deduced that the cystic masses in the lower and midabdomen represented ectopic polycystic kidneys. To substantiate this surmise urographic studies were carried out during the convalescent period in spite of the questionable advisability of such procedures.



Figure 2. Pyelogram of Right Kidney.

The right pyelogram showed a low-lying shadow with the uretero-pelvic junction at the level of the lower border of the fifth lumbar vertebra. The pelvis was quite large, with the upper end directed laterally. The major calices were long and wide and were deformed by external pressure; the minor calices were rounded. (See Fig. 2.) The left pyelogram showed the uretero-pelvic junction lying at the level of the fourth lumbar vertebra. The pelvis was of normal size. There were at least four major calices. The infundibulum to the inferior calix was quite wide, the infundibula to the other calices narrowed and elongated. The major calices were large and distorted by external pressure; the minor were wide but with sharp points. (See Fig. 3.)



Figure 3. Pyelogram of Left Kidney.

Investigation of liver function by the bromsulphthalein test gave a 6 per cent retention of the dye at the end of one half hour and no retention at the end of one hour. The icteric index was 6.8. A diagnosis of polycystic kidneys in association with polycystic liver was made.

At the time of this report the patient is still living. She has been confined to her home, and much of the time has been bedridden because of dyspnea, swelling of the lower limbs, and hematuria.

PATHOGENESIS

The cause of polycystic disease of the liver is unknown. Associated cholelithiasis is unusual, such cirrhotic change as is present is limited and not diffuse, and parasites are not found. There is much to speak for its congenital origin. It may be found in the newborn; it is occasionally familial. In the form seen in nonviable and premature infants, so-called dysencephalia splanchnocystica, there is found, in varying association, posterior meningocele, polycystic disease of the kidneys, polycystic degeneration of the liver and of the pancreas, polydactylism, and disturbances of the eye anlage and olfactory lobe.[3]

The congenital theory either presupposes that the condition is a simple malformation growing out of the occlusion of accessory or aberrant bile ducts, or that the disease is a true neoplastic change, cystadenomatous in nature, occurring in normal as well as abnormal biliary tissue. The normal condition of the extrahepatic ducts, the lack of connection between these and the liver cysts, and the absence of bile in the cysts' contents speak against the one concept, the diffuseness of the involvement, against the other. Some investigators consider the condition acquired. It may first be discovered in later life. Whether this bespeaks inception of the disease process in adult years or whether it indicates merely asymptomatic gradual growth from infancy is undetermined. Proponents of the theory of acquired origin can also assume the occurrence of neoplastic growth. The chief concept which they champion, however, is that of the snaring off of portions of liver consequent upon an interstitial hepatitis or cirrhosis, with resultant retention of secretion in the bile passages. In the center of the liver lobule no cysts appear; they seem to be derived from the epithelium of the intrahepatic bile ducts situated in the connective tissue in the area of distribution of the hepatic vessels. However, cirrhosis may be absent, and when present it is considered by many to be secondary. Thus, it is apparent that no completely satisfactory explanation of the origin of polycystic disease of the liver has yet been offered.

The cysts in polycystic disease are spherical, surrounded by a thin translucent membrane. The inner lining varies somewhat with the size of the cyst. In small cysts the epithelium is columnar, in larger ones it is cuboidal, in still larger ones it is flat, whereas not uncommonly in the largest ones the epithelium may have disappeared to a great extent. The contents of the cysts may be clear and watery, greenish yellow, turbid, or even gelatinous. In the same liver the content of the individual cysts may be different. It is generally assumed that this content has arisen from bile and has later changed by the absorption of the true bile elements. The fluid contains albumin and often cellular elements.

The liver substance itself may be normal, atrophic, or cirrhotic. Cirrhotic change is never general and is limited to the neighborhood of the cysts. Where a large part of the liver is involved in the degenerative process, the remaining liver may undergo hyperplasia. Most of the cysts consist of one chamber, seldom of several. However, in large isolated cysts, many loculi have been observed. The cysts vary in size. They are smaller, as a rule, in polycystic disease than in solitary cysts, which become quite large. In polycystic disease they range generally from the size of a pinhead to that of a lemon. In the same liver cysts of all sizes occur. The larger ones probably arise from the coalescence of smaller cysts, microscopic study revealing trabeculae which represent the remnants of former intervening walls. Ordinarily both lobes of the liver are involved, at times the right and at times the left being more affected. Occasionally the whole liver is so riddled with cysts that grossly no normal parenchymal tissue is visible, as was found in our case. The size of the liver varies; in solitary cysts the liver proper may not be enlarged appreciably although the cysts themselves may be of considerable size. On the other hand, in the diffuse cystic degeneration of polycystic disease hepatic enlargement is the rule, the liver at times even filling the whole abdomen and pelvis.

The frequent association of polycystic disease of the kidneys with that of the liver is just as difficult of explanation as is the origin of the liver cysts themselves. Cystic disease of the kidneys without involvement of the liver is common, but polycystic disease of the liver is almost always accompanied by polycystic kidneys. The generally accepted theory is that the renal condition is attributable to developmental error in the fusion of the embryonic kidney; this malformation leaves certain glomeruli and secreting tubules nonunited to their proper excretory tubules. Retention of secretion occurs from the blockage, with resultant cyst formation. If polycystic liver is likewise congenital and arises from abnormal developmental processes in aberrant bile ducts in the liver, how shall we explain the simultaneous occurrence of these two conditions other than merely to say that multiple congenital defects commonly occur? It has been suggested that these anomalies can be correlated and explained by the assumption that isolated portions of the wolffian body are included either in the enteric

[3] Rümler, E.: Die polycystische Entwicklungsstörung im Pancreas, zugleich ein Beitrag zur Frage der Cystenleber un der Cystenneiren, *Virchows Arch. f. path. Anat.* **292**:151-165, 1934.

bud forming the liver and pancreas as it develops in the ventral mesogastrium, or of that part of the intermediate cell mass in which the kidney forms.[4]

SYMPTOMS

Polycystic disease of the liver is largely a disease of the female sex. It is encountered most often in those just past middle life. Probably the cystic process is not sufficiently advanced in earlier years to give rise to symptoms causing the bearer to consult a physician. The finding of the condition in childhood, however, shows that the disease does not necessarily begin in later life. Occasionally it is encountered in the aged.[5]

The cysts may grow slowly or rapidly. They may stop growing and remain at any developmental stage. As long as the liver is not particularly enlarged, clinical symptoms may be in abeyance, and there may be no inkling to the patient or the physician that anything is amiss. The first finding is generally an enlarged liver, the lower border of which feels rounded, irregular and nodular. The knobby unevenness is not as clear cut and demonstrable as is the single tumor mass of the large solitary liver cyst. The individual cysts cannot readily be made out, and due to the tenseness of their filling they feel solid rather than cystic. Fluctuation is recognizable only in large loosely-filled cysts.

The chief subjective symptoms are due to the pressure of the enlarged liver on contiguous structures. Abdominal distress, fulness, heaviness, and a pulling in the abdomen constitute the general complaint. Interference with the alimentary tract causes anorexia, nausea and vomiting. Later emaciation and cachexia may appear. Interference with the portal circulation will give ascites and dilatation of the superficial abdominal veins. As the liver enlarges the diaphragm is pushed upward and may rise as high as the fourth rib.

In cases with associated polycystic kidneys there may be anemia, edema of the lower extremities, dyspnea, and albumin and blood in the urine. As in our case, the picture may be that of abdominal tumor, enlarged liver, and cardiac decompensation.

It is remarkable how extensive the disease may become without the patient appearing ill. Symptoms of cardiac decompensation appear late. Pain, as a rule, is not marked, the abdominal complaint being more frequently that of distress and uncomfortableness. Just as noteworthy is the lack of evidence of seriously impaired liver function. Icterus and other metabolic disturbances do not occur. This condition forcibly demonstrates with how little normal hepatic tissue the human body can function.

DIAGNOSIS

Polycystic disease of the liver is hardly ever diagnosed prior to laparotomy or necropsy. This is readily understood. It is possible to be reasonably sure in the case of solitary cysts of the liver, where the cystic nature of the condition can be determined by palpation and the probable seat in the liver surmised; however, even here mistakes are general. Where the condition is associated with polycystic disease of the kidneys the diagnosis should be evident. Had we carried out our urinary tract investigation before laparotomy, the true state of affairs in our case could have been recognized. The nodular enlargement of the liver frequently can be established, but in polycystic disease the size of the individual cysts is not large enough to permit recognition of their fluid nature; they feel firm and the natural assumption is that the liver is the seat of diffuse carcinomatous matastasis. Morrin,[6] after encountering such a condition at laparotomy in a patient with an enlarged liver, shortly thereafter was able to establish preoperatively the correct diagnosis of polycystic disease in her sister.

The hope that roentgenologic studies of the liver shadow would be of help has been disappointing. The pressure symptoms are the same as those in any enlargement of the liver and, hence, are not diagnostic. Even with the abdomen open, the true nature of the condition may not be immediately apparent. There are cases of echinococcus disease that may simulate it, in which multiple cysts are present.[7] Parasitic cysts, however, are yellow to white in color, at times tinged green by bile, and their cystic character is not so evident since they appear more solid, like carcinomatous nodules. Their outer capsule is laminated and the inner membrane carries the daughter cysts. Furthermore, echinococcus disease is frequently associated with enlargement of the spleen, icterus and eosinophilia. Definite establishment of the diagnosis rests on microscopic examination of the cyst fluid which shows scolices.

PROGNOSIS AND TREATMENT

As is evident from the history of the patient of Blum and Müller,[5] who was followed over a period of twenty-five years, the condition may be compatible with life even in the presence of great size of the liver and with diffuse and marked involvement of the hepatic tissue. Death may supervene from intercurrent disease. Death from peritonitis following abdominal paracentesis has been reported. Operative intervention may lead to fatal outcome. The association of polycystic kidneys with the presence of impaired renal function renders the outlook less favorable. Even the appearance of symptoms of decompensation, however, does not necessarily mean the beginning of the end, for these patients

[4] Carling, E. R., and Hicks, J. A. B.: Two Cases of Cystadenoma of Pancreas and Their Probable Relationship to Polycystic Conditions Found in Other Viscera, *Brit. J. Surg.* **13**:238-246, (Oct.) 1925.

[5] Blum, M., and Müller, W.: Ein Beitrag zur Klinik und pathologischen Anatomie der Cystenleber, *Deutsches Arch. f. klin. Med.* **173**:206-211, 1932.

[6] Morrin, F. J.: Polycystic Disease of Liver, *Irish J. M. Sc.*, pp. 666-670, (Oct.) 1929.

[7] Antonelli, J.: Les foies polykystiques, *Médecine* **20**: 561-573, (July) 1939.

may respond to appropriate medical treatment. A subsidence or healing of the condition has never been observed.

There is no rational or adequate treatment for polycystic disease of the liver. In case of solitary cysts and of limited areas of involvement of the liver by cystic disease, surgical intervention may be efficacious, the cysts being amenable to total or partial resection or marsupialization. In true diffuse involvement of the whole organ, however, intervention cannot be curative nor extensive. If the condition could be diagnosed accurately by clinical methods alone, many cases would not even warrant attempt at surgical treatment. Generally, however, exploratory laparotomy must be carried out to establish the diagnosis. The distress of the patient may at times be alleviated and life may possibly be prolonged by opening and evacuating the larger cysts or resecting certain areas; on occasion the wound edges of the cysts may be sewed into the abdominal incision. On simple aspiration the cysts soon fill again, since they are lined with epithelium, and the anchoring of incised cysts in the abdominal wound may result in permanent fistulae. Frequently supportive general measures are all that can be employed.

DISCUSSION

CLYDE G. CULBERTSON, M.D. (Indianapolis): Dr. Inlow has given us a very excellent presentation of this case and also the world literature and knowledge of this subject. There is little for me to add to his very excellent report. I feel that this case is of interest to those of us who are teaching medical students, from the standpoint that we are often accused of bringing up rare and embryological defects for which we can do nothing. Students have told us that.

In this instance Dr. Inlow was confronted with the problem of making a diagnosis on enlargement of the liver. He had to perform a laparotomy to prove it, but I have seen other instances, particularly in relation to the kidney, where failure to think of polycystic disease has led to the performance of an elective operation, only to lose the patient postoperatively because of polycystic kidneys. I have seen such a case. Of the two theories as to the origin, I believe that, as Dr. Inlow stated, the embryologic defect is the more attractive, at least to pathologists, and it is odd that two organs as different as the liver and kidneys should be involved in the same process. Of course, they have their points of similarity. The outgrowth from the gut to form the liver has to develop its channels and become connected through the bile duct with the biliary system, and perhaps this disease results because that connection fails to occur. In the kidney the same process is supposed to take place, but occasionally there is lack of an outlet of the renal units and cystic spaces occur—and we have the polycystic kidney. Apparently the processes are similar even though the organs are different in their embrologic development.

In the teaching of medical students today we are stressing these processes of embryology. We should talk more about the human embryology than about the chick embryology. Conditions of this sort should be emphasized so that embryological anomalies may be anticipated.

In noting his photomicrographs one point impressed me. Here we had small pieces of liver in that section. Of course, we realize that this was a large liver, and while only about one-twentieth of that section of the liver was functioning liver tissue, the amount was still adequate to sustain life. This patient had a normal liver function test. That, however, is not surprising, for Dr. Mann points out that the tests are but rough clinical indicators and that they will not give low results until the patient is almost in the stage of liver insufficiency. It is said that four-fifths of the liver can be destroyed before signs of liver insufficiency are noted. This case has many interesting features, and we are indebted to Dr. Inlow for his very excellent presentation.

ABSTRACTS

WAR RATIO OF MALE TO FEMALE BIRTHS

The normal proportion of male births over female births was even greater in every European belligerent power during the last years of World War I and for perhaps two or three years afterward, *The Journal of the American Medical Association* for November 22 says in answer to an inquiry.

"The proportion of male births increased also in many of the important European neutral countries," *The Journal* continues, "including Norway, Sweden, the Netherlands and (for the year 1920) Switzerland. There was an observable rise in Australia, but not in the United States or in New Zealand, among the non-European belligerents. The increase in the proportion of male births, where observed, was of short duration."

As for the reasons for this increase, *The Journal* says, "A simple explanation that seems entirely adequate has not yet been offered."

ADDITIONAL EVIDENCE OF THE VALUE OF SULFADIAZINE FOR PNEUMONIA

Additional evidence that sulfadiazine, a new derivative of sulfanilamide, may be considered the drug of choice in the treatment of pneumococcic pneumonia is presented in *The Journal of the American Medical Association* for September 6 by Harry F. Dowling, M.D.; Clarence R. Hartman, M.D.; Samuel J. Sugar, M.D., and Harry A. Feldman, M.D., Washington, D.C.

Their belief that sulfadiazine is preferable to two other sulfanilamide derivatives, sulfathiazole and sulfapyridine, is based on a study of 137 patients treated with sulfadiazine. Among 115 of the patients whose type of pneumococcic pneumonia was known, there were 13 deaths (11.3 per cent). This approximates the death rates recently reported by other investigators.

Reactions to the drug were infrequent and treatment effects more definite than those usually following treatment with sulfathiazole and sulfapyridine.

COMPLICATIONS OF MASTOIDITIS*

JOHN R. SWAN, M.D.
INDIANAPOLIS

Infection and inflammation of the middle ear, mastoid cells, and labyrinth usually are not *per se* a serious menace to life. The real danger is in the extension of the infection to the contents of the cranium, or to the jugular vein, and thence to the important viscera, such as the lungs, liver, and heart, or a general dissemination throughout the body — general septicemia.

Intracranial complications have been found to occur in one half of one per cent of infections of the middle ear. Brain abscess was found to be third in frequency among the intracranial complications of otitic origin, being exceeded by meningitis and sinus thrombosis. Of the intracranial pyogenic infections, thrombosis of the sigmoid portion of the lateral sinus and the various types of meningitis are most often observed. Since the symptoms are not always characteristic of the type and field of invasion, the differential diagnosis is often difficult to make. There are, however, certain general characteristic phenomena, especially after the process is well advanced, which usually enable the aural surgeon to diagnosticate the condition present. When, for example, there is a chill, followed by a rapid and excessive rise in temperature, the evidence is conclusive that the system has been invaded by a pyogenic host from some source. The most probable source of such an invasion is a distintegrating thrombus. The thrombus being infected, finally undergoes disintegration and the pathogenic bacteria are thrown in great numbers into the general circulation. As the sigmoid portion of the lateral sinus is in intimate anatomical relation to the mastoid process, the natural inference drawn, from the chill and rapid rise in temperature, is that sigmoid sinus thrombosis is present The thrombosis may be in one or more of the intracranial blood sinuses.

LATERAL SINUS THROMBOSIS

The infecting organism is found to be the Streptococcus haemolyticus in a majority of the cases. The cause of infective thrombosis is usually due to the loss of the integrity of the intima of the sinus from the extension of the destructive process in suppurative mastoid or labyrinthine inflammation. So long as the intima is healthy, it inhibits the coagulation of blood in contact with it, but where its vitality is impaired by a necrosing mastoiditis its inhibitory power is lost and the blood fibrin coagulates on the affected area and a thrombus is thus established.

At the beginning the thrombus is not infected. It is only after the wall of the membranous sinus has undergone marked deterioration that the infective micro-organisms penetrate it and lodge in the thrombus. Involvement of the lateral sinus may occur by metastasis through the blood vessels without an erosion of the sinus plate. This occurs most frequently in the hemorrhagic stage of the hemolytic streptococcus. Symptoms of lateral sinus thrombosis are chills; rigor; followed by great and marked fluctuations of temperature, sometimes subnormal, then rising to 104 or 106 degrees. Headache, severe, often excruciating on the affected side. Marked tenderness over mastoid emissary vein and posterior triangle of neck. High leukocytosis and polymorphonuclear count. Repeated examinations of the optic disc may disclose a papilledema or an optic neuritis on the affected side.

The study of the red blood cells and the percentage of hemoglobin in all cases of otitic origin is important. It assumes its greatest significance in cases wherein a hemolytic organism is the causative agent. These organisms live on the hemoglobin of the blood cells, and in event they have gained entrance to the circulation a gradual fall in the number of red cells and hemoglobin percentage is noted.

The well known Tobey-Ayer test is an aid in diagnosis, yet it is my feeling that too much reliance should not be placed upon its reading.

Treatment—Thorough mastoid surgery followed by opening the affected sinus and removing the thrombus and by aspiration in the sinus, try to establish free bleeding from both the bulb and torcular ends. If the sinus be thrombosed, some surgeons prefer to ligate the internal jugular vein and some do not. If the clot is located near the torcular end of the lateral sinus, and you can establish free bleeding from the bulb end, my feeling is that ligation is not necessary. Transfusions of whole blood are indicated and most beneficial. If the streptococcus is the causative agent, sulfanilamide preparations are to be given.

OTITIC MENINGITIS

Otitic meningitis is an elastic term and may very properly include a variety of conditions, from the circumscribed pachymeningitis to the diffuse or generalized purulent leptomeningitis, which frequently ends in death.

Circumscribed pachymeningitis: Every aural surgeon has during operations upon the mastoid met with occasional cases in which circumscribed areas of the dura have been found thickened, congested or even covered with granulations. The same condition exists in connection with extradural abscess. Such areas of pachymeningitis may involve the dura over the tegmen antri or sigmoid sinus. The great majority of these cases undergo prompt resolution as soon as all diseased bone is removed

* Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at Indianapolis, September 24, 1941.

and the inflamed dural surface is freely uncovered. This condition should not be considered too lightly, for only with prompt rational treatment is it a simple lesion.

Leptomeningitis: This was once regarded as an absolutely hopeless condition, but due to recent treatment the hopelessness is not so great. The three most important forms of otitic meningitis may be described under the following names: 1) diffuse leptomeningitis; 2) circumscribed leptomeningitis; 3) serous meningitis. By diffuse purulent meningitis we mean a suppurative inflammation of the meninges, which has reached the subdural and subarachnoid spaces, involving the arachnoid and pia mater, and which has spread widely, i.e., with no tendency to limiting peripheral adhesions within the meshes of the arachnoid. The pia mater is richly supplied with nerves and blood vessels, its arteries separating into numerous branches which pass directly into the brain cortex. Severe diffuse purulent leptomeningitis, therefore, is of necessity accompanied by a cortical encephalitis. The spread of infection from a suppurative focus in the middle ear or mastoid may occur by any of the following routes: 1) By direct infection through contact of necrotic bone with the dura, or through erosion of the inner plate at some point; 2) through an infected labyrinth, pus reaching the meninges (a) by way of nerve channels opening into the internal auditory meatus, (b) by the aquaeductus vestibuli, or (c) by way of the aquaeductus cochleae, which it will be remembered communicates directly with the subarachnoid space; 3) a third pathway of infection is through an intermediate suppurative lesion of the brain.

Symptoms: Onset is usually accompanied by a chill, or rigor, a sharp rise in temperature, and in many cases by vomiting. Headache is always an early symptom. Pulse is 120 to 140, and is higher in children. Patient is restless and irritable, in contrast with his normal mental state. The clinical picture is one of severe illness and, when accompanied by otitic suppuration, clearly indicates a serious change for the worse. There is rigidity of neck muscles. Kernig's sign is present. The mental condition, from one of extreme restlessness, soon lapses into delirium. Changes in eyegrounds, such as choked disc, papillitis, and optic neuritis are often seen. Lumbar puncture is informative if pus and bacteria are found.

Treatment: If reasonably sure that the meningitis is due to an infected mastoid, do a thorough mastoidectomy, the type of mastodectomy being determined by the acuteness or chronicity of the causal lesion. For any hope in these cases, I feel that it is most important to remove the focus first. If the infection is due to the Streptococcus, give massive doses of the sulfanilamide group.

BRAIN ABSCESS

Etiologically, we are concerned here with only one class of cases — those secondary to middle ear, or mastoid, disease. While brain abscess may result from either acute or chronic suppurative otitis media, the great majority of cases are due to the chronic form of the disease. Statistics indicate that about eighty-five per cent of brain abscesses are due to chronic mastoiditis, and fifteen per cent are due to acute middle ear or mastoid disease.

The majority of cases are in individuals between the ages of ten and thirty years. The most frequent sites of brain abscess of otitic origin are in the temporosphenoidal lobe or the cerebellum — the former far outnumbering the latter. The Streptococcus more frequently attacks the brain during suppurative middle ear disease than does any other micro-organism, although any organism may invade the brain.

Pathology: In the majority of cases the abscess is situated not far from the diseased area of bone, forming the immediate gateway of the intracranial infection. As to the process by which the infection reaches the interior of the brain, two modes of attack have been observed: First, as a result of inflammatory changes in the tympanic or antral roof, with or without perforation, pus collects between the dura and bone in the midcranial fossa at a point corresponding to the necrotic area. The dura, being in contact with pus, undergoes inflammatory changes, at first involving only its outer surface but later its entire thickness. Surgical evacuation of the pus not being provided, the inflamed dura undergoes necrosis at some point, thereby establishing a direct pathway of infection to the pia and thence to the contiguous cerebral structure. Secondly, a beginning erosion in the bony plate covering the tympanic vault and antrum gives rise to inflammatory changes in the adjacent dura, the diseased dura and bone becoming adherent. This process causes thickening at this point, with granulations upon its inner or cerebral surface. Lateral extensions of this process being retarded by outlying inflammatory adhesions, the pathway of infection is toward the interior of the brain. Invasion may occur in three ways: 1) blood vessels; 2) branches of cerebral arteries; 3) disintegration at the center of the inflamed area may provide a direct pathway for passage of pus from the mastoid to the interior of the brain.

Symptoms: Initial stage of brain abscess formation is usually announced by a chill, or rigor, high temperature and severe headache. Vomiting is sometimes present. A rather quiet symptomless period may be present for a few days. Second stage, headache, not excruciating — more of a dull, boring ache. Insomnia. Temperature more nearly approaches the normal. Slow pulse. Mental lethargy. Changes in the eyegrounds.

Surgical Treatment of Brain Abscess: Up to twenty years ago most cases of brain abscess ended fatally. One writer, in 1906, was able to say that all brain abscesses which he had opened had recovered—a fortunate experience to which few surgeons can lay claim. However, the average results of aural brain

surgery have been vastly improved during the last decade, and I believe that the mortality from otitic brain abscess is destined to a further material reduction. Regardless of the location of the abscess, the primary purpose of operative intervention is to evacuate pus and provide for subsequent drainage.

In a suspected case of brain abscess from otitic origin, a mastoidectomy should first be performed — the simple type if the ear infection be acute, and a radical mastoidectomy if the infection is of long duration. After being thorough in either procedure, the dural plate is removed from the suspected site of the abscess. In the well advanced case this plate may already be absent from the resulting necrosis and pus may be seen flowing through a fistulous tract or "stalk." If this be the case, a suitable trocar may be inserted through this sinus tract and the abscess evacuated. Then a Pezzer self-retaining catheter is inserted into the abscessed cavity and is left in this position until the filling in of the abscess cavity pushes the catheter out. This one is replaced by a straight catheter until the cavity is closed. The cavity should at intervals be irrigated by some sterile solution. The mastoid incision should be left open for several weeks to facilitate irrigation and drainage.

There have been many operations and technics described for the drainage of a brain abscess, but the above-mentioned procedure has been successful in this locality, and is not a complicated or dangerous procedure. When no fistulous tract exists, incision of the dura becomes necessary and the above procedure is carried out. This probably will incite some discussion, but I believe a brain abscess due to otitic origin should be searched for through the mastoid cavity and should be done by the aural surgeon.

INFECTIVE FACIAL PARALYSIS

Facial paralysis of otitic origin may result from any of the following conditions: 1) Acute suppurative otitis media of severe type, the inflammatory process extending through the tympanic wall of the fallopian canal and the nerve being either directly involved or subjected to pressure by inflammatory products within the canal. This is more common in children; 2) in chronic suppurative otitis media, the necrotic process involving the facial canal; 3) during a suppurative otitis media, as result of direct exposure of the facial nerve; 4) paralysis common in tuberculosis of the middle ear; 5) cholesteatoma.

Symptoms and Physical Signs: The facial changes accompanying this lesion are so characteristic and constitute a deformity so pathognomonic as to overbalance in diagnostic importance all other clinical features.

Treatment: When facial paralysis is present either in acute or chronic middle ear or mastoid infection, I think immediate and thorough mastoid surgery is indicated, with emphasis on thoroughness.

PETROSITIS

If after one to two weeks following a thorough mastoidectomy a patient still has a profuse aural discharge, retro-orbital pain, and paralysis of the sixth nerve on the same side as the affected ear, an effort should be made to determine whether or not the patient has an infection at the apex of the petrous pyramid. The above named symptoms are strongly suggestive of a petrositis. The severe pain is caused by irritation of the gasserian ganglion at the tip of the petrous pyramid where the sixth nerve lies for a few millimeters in a groove beneath the firm petro-clinoid ligament. Treatment indicated is surgical drainage of petrous portion of temporal bone.

CASE REPORTS

Case 1—Circumscribed labyrinthitis of left horizontal semicircular canal and left chronic mastoiditis. John Wolf, aged fifty years, a machinist in railroad shops. In November, 1936, patient presented himself with the following history and complaints: Dizziness for past three months. Staggering gait. Simple left mastoidectomy ten years previous, with no cessation of drainage. Upon lying down at night, the room seemed to turn to the left. Vertigo when walking fast or running. Attacks of dizziness when looking up or stooping. No nausea or vomiting. Patient noticed he would become dizzy when placing his finger in left external auditory meatus.

Physical Examination: Foul pus in left ear canal. Moderate sized perforation in Shrapnel's membrane, and through this appeared a silvery gray color. Spontaneous nystagmus to the left. Weber's test lateralized to left ear.

X-ray report of mastoid showed a lack of pneumatization and marked sclerosis.

Clinical Diagnosis: Circumscribed labyrinthitis of left horizontal semicircular canal, and chronic left mastoiditis.

Treatment: A left radical mastoidectomy was performed. The middle ear was filled with cholesteatoma. All available diseased bone and debris was removed and a fistula was demonstrated in the left horizontal semi-circular canal. The patient made a rapid and uneventful recovery.

Case 2—Petrositis. Duane Smith, male, aged fifteen years, was admitted to the hospital June 3, 1941, with a history of having had scarlet fever seven weeks ago, and also had a very sore throat at that time. He had intermittent discharge from the right ear, with pain behind the ear radiating to his forehead and over the right sternocleidomastoid muscle. A diagnosis of right acute mastoiditis was made, and on the following day a right simple mastoidectomy was done. For the following eight days his temperature ranged from 97 to 102 degrees, with pain behind the right eye. An x-ray report of the petrous tip was interpreted as definite infection in the tip. On June 12, 1941, the original mastoid incision was reopened and the petrous tip entered by the surgical approach as originated by Robert M. Dearmin, M.D., of Indianapolis. This approach is: Following a thorough simple mastoid-

ectomy, the lateral sinus is exposed down to the jugular bulb. The entrance to the tip cells is then made by directing the size 0 curet at an angle of ten degrees anteriorly and five degrees superiorly. The shaft of the curet should hug the jugular bulb. A drain was inserted in the petrous tip and mastoid cavity packed open. Two whole blood transfusions in normal saline were given during the succeeding ten days. Following one of the transfusions in this case, the patient's temperature rose to 105.4 degrees, accompanied by chills. After that the temperature remained normal.

DISCUSSION

E. L. Van Buskirk, M.D. (Lafayette): I wish to congratulate Dr. Swan on his very excellent paper on "Complications of Mastoiditis," and I wish also to add that the Indiana University Hospitals are to be praised for their statistical survey on this subject. I was once a resident at Indiana University Hospital, and I was very much surprised that the mortality of mastoiditis at the University Hospital was eleven per cent, and that four per cent of the patients at the Riley Hospital died without surgery; that is, they were in such a moribund condition when admitted that nothing could be done. However, with the introduction of sulfanilamide and that group of drugs the mortality of mastoiditis and intracranial complications has been greatly decreased. In the average practice we expect about fifteen per cent of the cases of otitis media to develop mastoiditis, and we expect about five per cent of the patients with mastoiditis to develop some intracranial complications. In this series a total of seventy per cent of the patients had a hemolytic streptococcus infection. Now in handling these cases it seems to me that sulfanilamide has helped a great deal, but I feel also that repeated small blood transfusions are of the utmost benefit.

In this same series of cases at the University Hospital, seventy-six per cent of the mastoid cases came to surgery, so, discounting the number that died soon after admission, apparently a small group of patients recovered with supportive treatment. It has been my experience, at least in private practice, that complications of mastoiditis occurred early in the course of their infection. I have seen perisinus abscess and lateral sinus thrombosis develop three days after the onset of otitis media.

A very dear friend, who lived in New York, died this winter of petrositis complicated by pneumococcic meningitis. He had the typical symptoms, namely, scanty aural discharge following a myringotomy, and because of the intense pain behind his eye and deep in his ear, his aural surgeon reopened his ear three times. The patient was advised that a child with a similar condition would be up playing around. Repeated x-rays of his mastoid failed to show any pathology and, in spite of his symptoms, an exploratory operation was not done until the onset of meningitis. I believe that whenever we have a case such as this it is always wise to do an exploratory operation of the mastoid.

K. L. Craft, M.D. (Indianapolis): I do not feel that this excellent paper should be allowed to go without some word of commendation at least. I know that Dr. Swan was handicapped in being limited in time in discussing these various conditions. One particular thing I would have liked to have heard him go into more fully was complications involving the facial nerve. The facial nerve, as we of course all know, demands a great deal of respect and should not be allowed to become involved because of undue delay in radical interference with conditions threatening its welfare. This nerve has, however, a remarkable come back, as has been shown in a great many cases in which paralysis has ensued during acute infection, or acute exacerbation of a chronic infection, either of the middle ear or involving the mastoid itself, with resultant complete relief of the paralysis when the proper surgical measures were taken to relieve the infection or the pressure involving the nerve.

This leads to a brief description of a case of an elderly man who came in about eighteen months ago, complaining of severe earache on the left side. He had been deaf in both ears for many years. The canal of the left ear was completely filled with polypoid tissue. I removed enough of the polypus in my office to provide drainage, and a sudden gush of pus gave very prompt relief of the pain.

Three days later the patient reported that he had had no further earache, but complained of dizziness, severe headache and pronounced weakness. At this examination sluggishness of the right upper eyelid and limitation of the right facial muscles were noticed. The patient entered the hospital the next day for radical mastoidectomy. At this time definite partial seventh nerve paralysis was apparent. During the operation in cleaning out the tympanic cavity I noticed what I first thought was another bit of infected polypoid tissue. It was a very frayed out, lacerated strip of tissue lying in the horizontal position upon the inner wall of the tympanic cavity. It was freely movable except at each end where it seemed to disappear into the bone. We decided that it was part of the seventh nerve, although it laid completely on the surface of the bone, entirely outside of any canal. Manipulation of this structure produced no twitching of the facial muscles and the exposed bit of tissue was so badly macerated that it seemed hopeless to expect any useful regeneration. However, we decided to leave this tissue as we found it and see what would happen. Following operation a complete paralysis of the seventh nerve developed, involving all branches. It was thought the patient would require a nerve transplant, but in about four months the nerve began to show signs of regeneration. This was about eighteen months ago. This man now has almost complete relief from the paralysis. He still has a slight lag in his eyelid and a slight limitation of movement about his lip, but his condition has improved at least seventy-five to eighty per cent. The point I wish to make is that while nothing

should be left undone to protect the facial nerve, it still has great inherent power of its own to resist infection and insult, and sometimes to make most remarkable spontaneous recovery if given the chance.

RICHARD GOOD, M.D. (Kokomo): I would like to make one comment on the treatment of the wound.

There was some experimental work done with pectin at that time at the University Hospital, but the records were lost and have not been reported. Fourteen wounds were treated with pectin. A Pectin Research is in progress at the University Hospitals, and the orthopedic department used pectin in treating wounds in cases of osteomyelitis in order to promote healing—finding that chronic osteitis healed with less hospitalization when pectin was used than with ordinary treatment. We, therefore, decided to try it on mastoid cases.

In this particular case the girl had, along with other complications, very poor healing power. The mastoid wound remained open for about three months, and no granulation appeared upon the exposed bone or dura. Pectin was made in a very thick semi-solid consistency, gauze was saturated with it and laid in the wound. Almost immediately granulation began to appear, and within two weeks from the time that it was started the wound was completely granulated and healed over. It was then used in about fourteen other cases, and all of them cleared up rapidly. The wounds became sterile within five days from the time the pectin was introduced. Pectin has the ability to inhibit bacterial growth as well as stimulate granulation.

DR. VAN BUSKIRK: I would like to ask Dr. Swan why he searches for a brain abscess through the mastoid cavity rather than through the temporal flap.

DR. SWAN (closing): In regard to the doctor's question as to the antiseptics used, about the only thing used is just general good hygienic cleanliness, plus alcohol and pectin if healing is poor and slow. In mastoid dressing, I think if you let the mastoid alone for about four days after surgery you get better results. You might take off the outside dressing if it is blood stained and thick and uncomfortable, then after that dress the wound every day, or every other day. Cleanse the wound with alcohol. In cases where healing is stubborn, use pectin.

In answer to Dr. Van Buskirk's question to why I explore the brain through the mastoid cavity, I know that brain surgeons contend this should be done through a clean field, but my answer is that the mastoid cavity is already open and is infected, so I see no contraindication to draining the abscess through the mastoid cavity. In many cases a brain abscess can easily be drained through the mastoid since the "stalk" presents here in some cases.

In closing, there is one point I would like to emphasize—if you are going to do a mastoid, devote an hour to it instead of fifteen minutes. If it is worth doing, it is worth doing well.

ABSTRACTS

FINDS WAY TO ABATE IRRITATIONS CAUSED BY ADHESIVE STRAPPING

A means of minimizing the skin irritation that sometimes is produced by adhesive plaster is reported in *The Journal of the American Medical Association* for November 22 by Robert F. Legge, M.D., Oakland, Calif.

A series of observations on 46 different persons, he says, showed that painting the skin with certain solutions before the adhesive was applied lessened the number of reactions. Compound tincture of benzoin, merthiolate and metaphen, the latter two substances being combined with alcohol and acetone, were the three solutions used by Dr. Legge in his study.

"The strappings were always of the lower part of the back," he says, "and the area strapped was approximately 7 inches by 15 inches; divided into four squares."

The sites of the squares were varied, so that the square treated with benzoin, for example, was at one observation in the middle of the field to be strapped and at another on the edge.

Dr. Legge explains that previous investigations of such skin irritations had been directed chiefly toward an effort to determine the factors involved in its production, no doubt with the object of removing from the plaster the irritants which caused the irritation. "Apparently it is impossible to remove these irritants without reducing the effectiveness of the plaster so far as its adhesive properties are concerned," he says.

Painting the skin with any one of the three solutions reduced the number of reactions, Dr. Legge reports, but the skin treated with the merthiolate solution "will show fewer reactions than skin treated with either of the other two solutions."

MEDICAL DIVISION OF CIVILIAN DEFENSE OFFICE ISSUES BULLETIN NO. 2

The thoroughness with which the Medical Division of the Office of Civilian Defense is preparing to meet civilian emergency needs associated with disasters is shown in the Division's Bulletin No. 2, published in the November 22 issue of *The Journal of the American Medical Association*. This bulletin concerns itself with the equipment and operation of Emergency Medical Field Units.

The bulletin explains that an emergency medical field unit is "a group of physicians, nurses, orderlies and volunteer nurses' aides organized, equipped and trained for field casualty service in the event of a disaster."

This unit operates from what is known as a casualty station and is so organized and equipped that it can be instantly subdivided into squads and teams for service at the actual site of disaster.

The recommended equipment listed in the bulletin is uniform and conforms as far as possible with that of the Medical Department of the U. S. Army. In addition to listing the minimum medical and surgical equipment for the first aid post, which is the advance unit of the casualty station, the equipment for the latter also is enumerated. For the first aid post the working supply for one physician's team includes the instruments essential for minor surgery, drugs, dressings and bandages and suture material. The equipment for a casualty station includes bulky articles such an splints, which could not be included in the equipment of the first aid post without impairing its mobility, and other items, such as matches, electric lanterns and gasoline stoves, as well as the drugs, dressings and bandages required for its efficient operation.

AFTER-TREATMENT OF POLIOMYELITIS*

ROBERT B. ACKER, M.D.
SOUTH BEND

On the basis of present knowledge it is quite probable, though *not proved*, that in human poliomyelitis the virus enters the body chiefly through the mouth and multiplies in the gastro-intestinal tract. There are several possible pathways of the virus from the gastrointestinal tract to the spinal cord. From the upper part of the tract the virus might make its way, by means of the cranial nerves, to the region of the medulla. By such an invasion bulbar symptoms would predominate, with the high mortality attending such cases. From a lower location in the gut the virus might follow fibers, from the intestine to spinal ganglia or abdominal sympathetic ganglia, into the cord. In the latter type of invasion paralysis of extremities would be primary. It is conceivable that in an abortive case the virus would not leave the gastro-intestinal tract to invade the central nervous system, or, if invasion did occur, destruction of nerve cells would not be sufficient to produce clinical symptoms. The nasal route of infection is questionable in the light of known facts and accounts for the failure to obtain protection of humans by prophylactic topical applications of zinc sulphate to the nasal mucosa. It will be recalled that this method of prevention was tried rather extensively in the Toronto epidemic. This, coupled with the absence of demonstrable lesions in the olfactory nerves and the absence of virus in these structures, casts further doubt on the nasal route in human poliomyelitis.

The current conception as to the pathology of poliomyelitis is that this is essentially a disease of the central nervous system, and that it attacks the neurons specifically (neuronophagia), spreading from one focus to another by means of the axis cylinders. There is an associated inflammation, confined almost entirely to the grey matter, with edema and congestion of the blood vessels. This conception is disputed by some who hold that the degeneration of the neurons is secondary to primary interstitial inflammation in the grey matter of the cord.

The writer believes that in most instances poliomyelitis is diagnosed after onset of the paralysis, and that the paralysis is the deciding factor. The diagnosis may be made before the onset of paralysis, from spinal fluid findings and from symptoms alone if they are typical. Poliomyelitis is apt to start in much the same way as any infectious disease in childhood, and the symptoms may not be distinctive until the paralysis is evident.

There is no evidence at present that convalescent serum has any effect on the course of the disease. There is no evidence to indicate that the giving of serum results in a milder attack or less paralysis. Convalescent serum is difficult to obtain and in most instances is expensive. In the next place, convalescent serum usually contains fewer neutralizing antibodies than normal serum, and it has been shown that forty per cent of convalescents have no antibodies at all. It has been said "The physican should not be obligated, morally or legally, to give convalescent serum; nor should he be held responsible for having withheld it if the outcome of the case is unfavorable." At present there is no vaccine or other substance which confers immunity or prevents the invasion of the virus. Zinc sulphate solution applied to the nasal mucosa of monkeys prevented infection by the nasal route when large amounts of virus were used. In the human, such applications failed in preventing the disease. We might say with assurance that only an attack confers immunity.

We will all agree, I believe, that the currently employed methods of treatment are unsatisfactory and are directed at the effects of the disease rather than at its cause. In our helplessness we are unable to check or alter the ravages of the virus in the neurons and their axis cylinders. We can only direct our help to the muscles deprived in whole or in part of their supporting nerve tissue. As soon as a diagnosis is made, the patient should be put at complete rest, and by complete rest we mean physiological rest, not just rest in bed. *This should be done even when little evidenee of involvement is present.* It is not necessary at this point to have a muscle chart made but only to determine in a general way the parts affected. In physiological rest the body and limbs are immobilized in such a position that opposing muscle groups have no action, and all muscles are off strain. This is the neutral position. The apparatus used is not important, but the position of the affected parts is of prime importance. For the purpose of splinting, many types of apparatus are used. In my experience plaster of paris is the splint of choice. It is readily available, easily applied, and gives a comfortable splint which is not easily disarranged. Whatever splint is adopted, it is best to place the patient on a hard bed or frame—a Bradford frame is especially useful in cases with extensive involvement and simplifies the nursing problem. In the lower extremity the proper position is with the foot at right angles, patella pointing directly upward, and the knee slightly flexed. The leg should be between abduction and adduction until it is determined which group is stronger, and then the weaker group should be favored. The lumbar curve in the

* Presented before the Section on Surgery of the Indiana State Medical Association at Indianapolis, September 24, 1941.

back should be supported and not allowed to flatten out. A small pillow under the back will accomplish this. In some instances it may be necessary to elevate the legs in order to flex the hip joints and thus relieve pull on the large hip flexors.

It has been pointed out that there are at least seventeen muscles having some part of their origin or insertion on the scapula or the shoulder. All muscles about the shoulder girdle cannot be top favorites. The question arises, which muscle should be favored? The logical conclusion seems to be to favor the muscles that support the weight of the arm, the so-called "gravity muscles." The most important of these are the deltoid and supraspinatus in the shoulder, and the midtrapezius and rhomboideus in the scapula (Carroll). Abducting the arm seventy-five degrees best relaxes the shoulder girdle, and by holding the shoulder down with a pad the outward excursion of the scapula may be prevented and the rhomboids best relaxed. The shoulder should rest on the bed and should not be suspended. The forearm should be held midway supination, and the hand should be partly flexed—the support should be on the back of the forearm and hand.

A fairly constant symptom in the acute stage of poliomyelitis is muscle soreness and pain. Pain is increased by joint motion and is brought under control by splinting. This is one of the important results of early treatment. Retaining the extremities in neutral position prevents opposing muscle groups from acting against each other and if one group be paralyzed, the opposing group cannot overstretch the weaker group and bring about a stretch palsy. Three things are thus accomplished by immediate immobilization: pain and soreness are relieved, stretch palsy is prevented, and the paralyzed muscles are put at rest.

The acute stage is considered at an end when muscle soreness has disappeared. This usually occurs in a few weeks. The convalescent period now begins and is arbitrarily set at from eighteen months to two years' duration, for it is thought that all expected recovery will be complete by that time. It is usual to defer surgical measures until this period of time has elapsed. One may usually make a fairly good prognostic judgment in six months. Muscles which show any ability to move the part may be expected to develop a range of usefulness. Those that do not probably will fail to recover.

It is generally taught that active treatment should not begin until all muscle soreness is gone. However, it has been my experience that when such soreness is not too acute gentle massage is gratefully accepted by the patient. Acute cases, old enough to respond, will tell you how good it makes the legs or arms feel. Heat, massage, and muscle re-education exercises should not be started to any degree, however, until muscle soreness has subsided. This stage of treatment may be carried on by either the wet or dry method: that is, underwater exercises may be given in a pool, or the patient may receive his muscle re-education on a dry table. In my opinion, the results obtained closely approximate each other. In favor of pool treatment, it must be said that the buoyancy of the water does give the handicapped person a feeling of security and a desire to make a conscious effort. Exercise in the pool is certainly more pleasurable and takes away some of the drudgery of convalescence. I would emphasize that during the exercise period the paralyzed muscles should be guarded and fatigue should be avoided. Muscle charts should be made routinely about every thirty days as a guide to progress in recovery and an index to muscle groups needing attention.

It is not always easy to decide when to get a patient out of bed. The time depends, of course, on the extent and severity of the paralysis. Mild cases may be allowed to be up in a few weeks, with proper supporting braces and supervision. The patient should never be overfatigued. Patients with extensive paralysis will require a correspondingly longer period in bed, and are first propped up in a sitting position for a period before being allowed in a wheel chair. It is my practice to substitute braces for the usual splints while the patient is still in bed so that he may become accustomed to the feel and support thereof. I believe that patients should, on the whole, be allowed to be up reasonably early, and active motion with weight bearing should be encouraged. In this connection it may be said that one active motion is worth a great many passive ones. Such activity is, of course, to be restricted, and its amount should depend upon the strength of the muscles and the return of power. The regeneration of axis cylinders is a slow process, and holding a patient inactive for prolonged periods is not conducive to muscle recovery or proper mental balance.

From Australia has come a mode of treatment which differs radically from the orthodox methods I have just outlined. This is a method devised and developed by Sister Kenny, and at present it is being given a trial, under her own direction, at the University of Minnesota. In this system immobilization of affected parts is abandoned, and no splints or casts are used at any time. The patient is placed on a hard bed, with a board at his feet, a space being left between the mattress and footboards to allow the heels to drop below the level of the mattress, and thus not rest upon it. The board is designed to "maintain the normal standing reflexes" and not to act as a splint in any way. The patient lies flat upon the mattress, legs straight and arms at his side. Hot fomentations are applied to the affected muscles every two hours, or more often, as the case may be, depending upon the severity of involvement. Passive motion is practiced early through ranges of motion which do not produce pain. Muscle re-education usually begins during the first week of the disease.

The exponents of this treatment point out that instead of the usual conception of a flaccid paralysis

of muscle, actually a spasm exists which may produce the pain and soreness complained of, and accounts for the stiffness of the neck and back usually attributed to meningeal irritation. The application of hot fomentations and early movement relieves the spasm, and the pain disappears. By relief spasm, Sister Kenny believes that permanent paralysis of the muscle is prevented or much reduced. Just what produces the spasm is not quite clear, but the concept regarding the basic pathology seems to be that a vascular deficiency exists in the tissues, and that hydrotherapy and movement relieves this deficiency.

A number of reports are available from medical men who have had an opportunity to observe the Kenny method. Most of them do not think it is of particular advantage over the orthodox methods. The latest report, a preliminary one, from Minneapolis, speaks with considerable enthusiasm of the results so far obtained. I have had no personal experience with the procedure, but I believe it needs further trial before a sound judgment can be made of its value.

Paralysis caused by poliomyelitis should be thought of and treated largely in the same manner as any other lower motor neuron paralysis. We are all familiar with the wristdrop caused by paralysis of the radial nerve. It is our custom to place the hand and arm in a cockup splint to prevent muscle stretching, and later to apply heat, massage and exercises to maintain the nutrition and tone of the muscles involved. Here the idea of treatment is given in a nutshell: first to protect the damaged muscle, and then to preserve its nutrition while awaiting restoration of nerve function, over which we have but little control.

The final extent of paralysis remaining in muscle depends on the amount of damage sustained by the anterior horn cells, and physical therapy, however applied, cannot alter the effect of permanent damage to the nerve cells. Physical therapy is effective in keeping up the nutrition of the muscles and in assisting in their comeback. It cannot affect the ultimate paralysis, the extent of which has already been decided by the changes in the nerve cells of the spinal cord.

DISCUSSION

J. Neill Garber, M.D. (Indianapolis): It is a privilege to discuss this paper of Dr. Acker's in which have been covered well the present known methods of treatment for poliomyelitis in the early stages. It might be of interest to know how many cases resulted from the last epidemic in 1940. There were in Indiana 682, of which 70 occurred in those above the age of 15, and 48 in those above the age of 21. That indicates a definite trend toward a higher age group in recent years. I mention that because there are two things in the treatment that I should like to point out.

In the treatment of children, regardless of how well they are splinted, there is a very great tendency for scoliosis to develop. Even though these patients are kept flat on their backs or flat on their abdomens, as the case may be, the tendeney for scoliosis is great, and I think that unless some method, such as the Kenny treatment, which was mentioned by Dr. Acker, eomes into popular use, spinal fusion will probably sometime become the prophylactic treatment of scoliosis in polio. On the other hand, with the higher incidence of adult cases, we find the upper extremities frequently involved, and it has been very disconcerting to me to see among patients at the Indiana University Clinic the amount of stiffness in the fingers and hand which results after very careful splinting in polio. The stiffness of these fingers which are immobilized by muscle paralysis the same as they would be if they were tied to splints or in plaster casts for several weeks is very great and it is very difficult to overcome. Perhaps the Kenny method may be the answer to that problem.

I agree with Dr. Acker that we should not give up immediately all of the known methods in favor of the Kenny treatment, but there is a note of restrained enthusiasm in a report on this method by the University of Minnesota. They have twenty cases which have been under treatment in that clinic. Eleven of those cases have been discharged as completely cured, seven are well on the way to recovery, and the other two were so recent that they weren't reported. This method is something which, even if it does not justify adoption, certainly demands investigation and a lot of future study.

It is with great apology to the orthopedists here who work so hard with these cases, and to the physiotherapists who also spend so much time with these cases, that I mention the work of Crego and McCarroll of the Shriners' Hospital in St. Louis. At the meeting of the American Academy of Orthopedic Surgeons in New Orleans, in January, these men reported a comprehensive review of results in cases of polio treated from 1936 until 1938. They reported one hundred sixty cases which had had all types of treatment; that is, physio, plaster splinting, and other types of splints such as the Toronto splint, and compared the results with one hundred twenty-five cases that had been brought in from the surrounding hill country and who had had no treatment. Their conclusion was that the residual amount of polio was not affected in the slightest degree by any orthopedic treatment in any phase of the disease from the time of onset through the stage when the residual paralysis was being established (that would be from zero to two years), and that the type of paralysis which finally resulted was entirely dependent upon the extent of damage to the anterior horn cells. These are not my views and I am sure they are not those of some others, but I think they are worthy of mention here because we are considering every feature in the after-treatment of infantile paralysis.

THE CLINICAL APPLICATION OF THE NEWER LABORATORY PROCEDURES AS PERTAINS TO THE MAN IN GENERAL PRACTICE

PANEL DISCUSSION FROM THE ANNUAL CONFERENCE OF THE INDIANA STATE MEDICAL ASSOCIATION

(We are publishing herewith the panel discussion held at the Medical Section of the Indiana State Medical Association, September 24, 1941. The symposium was so well received that its continuance was requested for next year.—Editor.)

J. O. RITCHEY, M.D., chairman of panel, Indianapolis
ALFRED S. GIORDANO, M.D., South Bend
WEMPLE DODDS, M.D., Crawfordsville
GORDON B. WILDER, M.D., Anderson

QUESTION 1. What is the Schilling count? What is meant by a "shift to the left"?

DR. DODDS: A Schilling count refers to the enumeration of immature blood cells in the ordinary differential count of stained blood films. Neutrophilic cells are divided by Schilling into four groups in ascending order of maturity, namely, myelocytes, juveniles, "bands" (stabs, staff form, and other terms), and segmented forms. A "shift to the left" indicates the appearance of immature cells in the peripheral blood. Normally, myelocytes are not found in the peripheral blood, juveniles very infrequently, and bands in the percentage of three to five. During most infections these immature cells appear in the blood in increased percentage, and since Schilling placed these immature cells to the left in his so-called hemogram, the appearance of these cells in the peripheral blood is spoken of as a shift to the left. With a shift to the left there is a coincident decline in the percentage of lymphocytes.

DR. GIORDANO: I think there is one more test simpler than that, and that is the segmented and nonsegmented count. It is very simple. You first count how many cells are segmented and how many are not, and you have a quick answer to the question.

QUESTION 2. What is the value of a sedimentation rate? Do anemia and pregnancy modify the test?

DR. WILDER: The value of the sedimentation rate is that it is a simple process, and it does give quite a lot of information. I think it should be done in certain differential diagnoses as a routine test.

As to the effect of anemia, a great deal of work has been done on that. I think many investigators now claim that for all practical purposes it is not necessary to correct for anemia. However, in certain conditions in which one wants to differentiate between ulcer of the stomach and carcinoma of the stomach, if anemia is present one must consider the anemia. Without anemia and with a high sedimentation rate, the differential diagnosis would be in favor of carcinoma.

Pregnancy is about the only so-called "normal" physiologic process that causes an increase in the sedimentation rate. It causes a slight increase in the rate.

The sedimentation rate is very important as a guide to prognosis. Conditions in which it has such prognostic value are tuberculosis, acute rheumatic fever, coronary thrombosis, pelvic inflammatory disease, etc. A continued high rate indicates that the process is still active, or that some complication or spread of the process has developed. A progressive lowering of the sedimentation rate indicates a satisfactory progress or improvement of the condition. We have found this a very helpful guide in the management of some of these conditions.

QUESTION 3. Of what value is the hematocrit—what is the normal? Are there any factors which influence it greatly?

DR. GIORDANO: The greatest usefulness of the hematocrit test is to determine the relative degree of hemoconcentration, and that is valuable in the study of shock, also in pneumonia. In these two instances it is valuable and very easily done.

QUESTION 4. Should a uric acid, creatinine, and urea nitrogen test be done at the same time? Which is the best to use?

DR. DODDS: A blanket order for blood uric acid, creatinine, and urea nitrogen in cases of suspected nitrogen retention is not necessary—determinations of urea nitrogen alone should answer the question. Uric acid will be increased when the nonprotein nitrogenous substances are increased, but it is chiefly of use in suspected gout. Creatinine determinations are chiefly of prognostic importance.

DR. GIORDANO: If the urea is below 100, you are wasting your time in doing creatinine determinations; however, creatinine is one of the very best indicators in the prognosis of renal disease.

DR. RITCHEY: I think there are certain conditions of toxemia in which the uric acid test is desirable.

QUESTION 5. What is the present status of the P S. P. test?

DR. GIORDANO: I think that the two-hour test should be thrown out. It has been well demonstrated that the intravenous method is the simplest and

most accurate. Another valuable test is the specific gravity test. That, too, is a simple renal function test and can be done in the physician's office. The fact that the kidney cannot concentrate solid products is a good indication that the renal function has been interfered with.

DR. WILDER: I prefer the fifteen minute P. S. P. test to the old two-hour method. It is much more simple and I feel it gives as much information. We do a twenty-four-hour concentration test in which we have the patient go without fluid for twenty-four hours and then check the specific gravity of the urine. Occasionally we do run into trouble, say in a patient with nephritis. I think it is better for those patients to go without fluid from bedtime until the next morning and then collect a specimen. You get practically the same results as with the twenty-four-hour test and the patient does not suffer from the prolonged interval without fluid. This concentration test is a good indication of kidney function.

QUESTION 6. What is the most satisfactory liver function test?

DR. GIORDANO: A great deal has been written about liver function and liver diagnostic tests. I would like to say that there is no such thing as a differential diagnostic test for differentiating between the obstructive and nonobstructive jaundice cases. The very best approach is the clinical approach. If you keep in mind that the function of the liver is to excrete bilirubin, then a simple quantitative determination of bilirubin is the best guide as to what is going on in that liver, and you do not have to make dye tests or anything else. I believe the bilirubin determination is the best method. Those who use the photo-electric colorimeter can do anything with it, but if you use the ordinary colorimeter, the standard and unknown are difficult to match and the results unreliable. This is true of the old method of bilirubin determination, using ether solvents.

QUESTION 7. Does pernicious anemia occur in Negroes? How can you be sure of the diagnosis?

DR. RITCHEY: I imagine the diagnosis would be the same as in anyone else. I think it does occur in the Negro provided he has some white blood in him. If anybody knows for sure that that is not right, I would appreciate if you would let me know. Investigation has revealed that cases of pernicious anemia have occurred in colored people where there seemed no reason to suspect a mixture of races.

QUESTION 8. What is the proper test to use to determine jaundice? How often should a test be run on a jaundice patient?

DR. WILDER: The test we use most is the icteric index—anything to determine the serum bilirubin content of the blood.

QUESTION 9. How accurate is the blotter method of hemoglobin determination, using the color charts as compared to the colorimeter determination in grams?

DR. DODDS: Probably the most inaccurately performed test done in the clinical laboratory as well as in the physician's office is the estimation of hemoglobin. I feel that the blotter method (Tallqvist) is entirely outmoded.

QUESTION 10. In what condition would a prothrombin test be of some value?

DR. DODDS: The prothrombin test is used in the determination of vitamin K deficiency, and also in determining the results of vitamin K administration. Vitamin K deficiency occurs in obstructive jaundice when the bile is prevented from entering the intestine. Vitamin K deficiency also results when there is an external biliary fistula. In hemorrhagic disease of the newborn, there is also vitamin K deficiency. In all of these conditions, therefore, prothrombin determinations are of value.

QUESTION 11. What is the upper limit of normal for red cell count and hemoglobin, and the lower limit of the same in polycythemia?

DR. RITCHEY: I think it would be difficult to make a hair-splitting diagnosis in polycythemia. We find that a lot of other factors have to be considered, such as the clinical picture of the patient and his physical condition. I do not think there is any particular level at which one could say this individual shows a definite polycythemia. The volume of blood is just as important as the count.

QUESTION 12. What about the falling tower and where is it usable?

DR. WILDER: I think it is valuable as a method of determining protein. It is a good way to determine the total protein in the plasma, but it is most useful in determining the presence or absence of shock in patients before they go into deep shock. It is a simple method and it takes only about three minutes to do it.

QUESTION 13. Of what value is a quantitative determination of sugar in the spinal fluid? What is the best sugar tolerance test?

DR. WILDER: We are all familiar with blood sugar tests in diabetes and such conditions. The quantity of sugar in the spinal fluid is not of much importance except in meningitis and similar cases, in which it helps in differential diagnosis. The sugar is low in tuberculosis meningitis. The best sugar tolerance test, I believe, is the standard glucose tolerance test. Give the patient a certain amount of glucose, and then determine the blood sugar at certain definite intervals.

DR. GIORDANO: I think the quantitative test for sugar in the spinal fluid is of great value in the diagnosis of tuberculous meningitis. In all meningitides, the spinal fluid glucose is markedly reduced, usually below 40 mgm. per cent. With this in mind, the pyogenic meningitis can be ruled out by the examination of the causative organisms in the ordinary smear; thus leaving only luetic meningitis and tuberculous meningitis to be excluded. Lues is established by the Wassermann test and the colloidal gold curve and thus tuberculous meningitis can be definitely established without waiting six weeks for pig inoculation. By that time the patient has either recovered or has died. Another type of

meningitis which can be determined easily on the basis of quantitative glucose is the choriomeningitis, or so-called lymphocytic meningitis. In this type of meningitis the glucose level is within normal range, or a little higher, and there are no demonstrable bacteria in the smear. Also, the quantitative test for sugar is valuable in diabetic coma. I have been unable to find reports in the literature on the glucose content of spinal fluid in coma. I had a case in which the spinal fluid sugar was 500 mgms., and later up to 800 mgm. per cent, whereas the blood sugar was 250 mgms. The patient was comatose. Following the spinal drainage, the coma rapidly cleared up and the patient made an uneventful recovery, so that there is probably a definite relation between the sugar concentration of the spinal fluid and coma. I mentioned this with the hope that someone will make a more extensive study of the observation.

DR. RITCHEY: I should like to say a word regarding glucose tolerance tests. I think there are a lot of them that are a waste of time. They have to be interpreted after they are done. There are a good many methods in use. If the blood sugar is above 130 after twelve hours' fasting I think we can safely say that it is definitely above normal and is of value from the diabetic standpoint. The Exton-Rose method, 50 grams of glucose, then the blood sugar, then another 50 grams of glucose, is not the most accurate method in the world, but if carefully done, it does give some idea about those individuals who have a very definite lessening of glucose tolerance.

QUESTION 14. What does six plus B. M. R. mean?

DR. WILDER: I think that it should read *plus* or *minus* six. It would not mean anything to me. Some of the cases that are below normal, if given Lugol's solution for awhile, and then another test is made, will show an abnormal rate—say, a little high. *Plus* or *minus* six would not mean anything to me for I would consider either one of them within normal limits.

QUESTION 15. What is the value of the micro method of blood sugar determination as compared to the Folin-Wu method?

DR. GIORDANO: The micro method is dangerous because errors are multiplied by the hundred. It is all right when the method is in expert hands. There is a question as to whether it is important enough to have a well-trained chemist do it, or whether to use a less accurate method.

QUESTION 16. Is there any explanation for abnormally slow RBC sedimentation rate?

DR. RITCHEY: I think temperature has something to do with it, and sometimes the sedimentation is slow because of the viscosity of the blood.

QUESTION 17. When sulfonamide drugs are being given, what laboratory tests are of special importance?

DR. WILDER: When giving the sulfonamide drugs, the blood concentration is the important thing to watch. I do not know whether I remember the exact figures, but as I recall, sulfapyridine is at the level of 5; sulfathiazole, 6 or 7. The important thing is to watch the concentration in the blood, and, of course, to keep a close watch for the appearance of any anemia.

DR. GIORDANO: I think it also is important to watch the blood count and the hemoglobin in order to determine toxic effects on the bone marrow and avoid hemolytic anemia and granulocytopenia.

QUESTION 18. Of what value is cholesterol determination in the blood?

DR. DODDS: We have found cholesterol determinations to be particularly useful in differentiating hypothyroid states. It is also of value in lipoid nephrosis and the nephrotic stage of chronic glomerulonephritis.

QUESTION 19. What is the value of sternal puncture and bone marrow study in blood dyscrasias?

DR. GIORDANO: It is useful in the study of blood dyscrasias of any kind, but especially in differentiating so-called aleukemic leukemia where one cannot make the diagnosis clinically because he is not able to demonstrate immature cells in the peripheral blood, but the bone marrow will do so. It is simple; there is nothing difficult about the technic, and I think anyone who makes any attempt to study the blood should be able to learn the bone marrow technic.

QUESTION 20. Is the Gordon test in Hodgkin's disease of practical value?

DR. DODDS: I have had no experience with the Gordon test.

DR. WILDER: The Gordon test was brought out in 1933. Gordon injected into a rabbit pulverized gland tissue intravenously and intracranially at the same time. The rabbit developed encephalitis if Hodgkin's disease were present in the injected glands, and, consequently, Gordon thought he had a specific test for Hodgkin's disease. But I think that it recently has been shown that there are other conditions in which one finds a high eosinophilia and which show the same reaction. I do not think that it is a specific test for Hodgkin's disease.

QUESTION 21. Discuss the reliability of the various tests for pregnancy, and a comparison of their reliability.

DR. DODDS: I have not had extensive experience with any pregnancy test except the Friedman test. We have found it to be very reliable, and although the compilation of our statistics is not complete, we have had only one false positive in several hundred cases. There are other conditions than pregnancy which will produce a false positive test. The clinical examination should serve to rule out these conditions. If the morning urine, after restriction of water, is submitted to the laboratory as promptly as possible in a clean container, the results with the Friedman test will be excellent.

QUESTION 22. In what condition is an electrocardiogram of benefit?

DR. WILDER: Of course, the electrocardiograph is used in all kinds of heart disease, but it probably

is most important in coronary disease. I think a warning should be sounded against its indiscriminate use and the value of proper interpretation.

DR. RITCHEY: Just as important as it is to have an electrocardiograph is it important to have it read by someone who understands the electrocardiogram and what it means in its application to a particular patient. I would like to emphasize that a lot of these tracings are being sent around, and many people are made unhappy because of some of the readings which are hardly justifiable in relation to the patients in question.

QUESTION 23. What is the value of the venous pressure test?

DR. WILDER: The venous pressure test is, I think, important in estimating the cardiac reserve, particularly the back pressure of the circulatory system. The test is simple. It is done by taking a tube, fitting it with a needle and going into the vein. In this tube the blood rises to a certain height, and there are certain normal limits that indicate whether there is back pressure. You may have high venous pressure before you have cyanosis, edema and enlargement of the liver. To me a high venous pressure is indicative of beginning circulatory failure.

QUESTION 24. What is the advantage of the alcohol test meal over the Ewald meal?

DR. GIORDANO: I like the alcohol test because it is simple to give and probably results in less sediment than the Ewald meal. There is no residue to obstruct the syringe.

QUESTION 25. What is the significance of agglutination tests with low titer?

DR. DODDS: Low titer agglutination tests present a difficult problem to the physician. Immunization against typhoid fever will produce weak agglutination reactions for a considerable length of time, and the physician should, therefore, carefully question his patient regarding immunization. In cases of suspected typhoid or paratyphoid fever, it is preferable to repeat the agglutination test after six or seven days to determine whether the titer is increasing. The same procedure may be necessary in brucellosis when a low titer agglutination test is reported.

QUESTION 26. What is the significance of a high serum phosphatase (15 units) in the absence of demonstrable bony pathology?

DR. GIORDANO: A few years ago we investigated the diagnostic value of the phosphatase test in the diagnosis of jaundice. This was based on the work of Roberts, who demonstrated that in nonobstructive jaundice, the phosphatase level reached about ten units, whereas in obstructive jaundice the phosphatase reached above the ten units, and the quantitative bilirubin was elevated in both cases. Our work substantiated Roberts to a certain degree; however, there was about a thirty per cent error in this method. When the phosphatase level was raised to fifteen units, the error was cut down to about fifteen per cent. It still remains, however, that in cases where the differential diagnosis is most important, as in obstructive jaundice of the newborn or atresia of the common bile duct, this test was found to be a complete failure. When this test is combined with the clinical picture, however, considerable information can be obtained for use in arriving at a differential diagnosis.

ABSTRACT: FIND NUMBER OF STREPTOCOCCI IN AIR IS RELATED TO INCIDENCE OF COLDS

"Bacterial analyses of the air of a large department store carried out with the Wells air centrifuge during the course of a year have shown a marked correlation between the numbers of streptococci of respiratory origin recovered from the air and the prevailing rate of colds as indicated by the medical records of the employees," John C. Torrey, Ph.D., and Michael Lake, M.D., New York, report in *The Journal of the American Medical Association* for October 25.

Streptococci are a genus of bacteria which cause such conditions as septic sore throat, commonly called "strep throat." They are commonly present in the throat without causing any harm unless resistance is lowered, such as by a cold.

The two New York men say their finding tends to substantiate the suggestion by a previous investigator that the presence of one of the types of streptococcus, known as alpha hemolytic, may well be taken as an indicator of pollution of the air by discharges from the nose and throat in a manner similar to that in which another type of bacteria has been accepted as an indicator of the pollution of water supplies by sewage.

Of particular significance in relationship to the time of the year when colds are most extensive is the finding of the two investigators that "the prevalence of streptococci and that of colds were at a minimum in the summer months. The first rise in both curves occurred in October, and then, following a drop in November, there occurred a steady rise to a peak in January and February. The streptococcic content of the air apparently was influenced to a greater proportional degree by the prevalence of colds than by the density of crowds. The store was by far the most crowded during December, yet the total count of streptococci was increased only slightly over that for October and was far lower than that for February, when the prevalence of colds reached a peak for the year. . . ."

As to the source of the pollution of the air in the store, Drs. Torrey and Lake say that "the customers so greatly outnumbered the sales force in the localities chosen that they may be accepted as the main source of pollution of the air by organisms from the respiratory tract. If it is granted that such was the case it would then follow that the rate for the prevalence of colds among the employees, as indicated by the records of the medical service, seemed to reflect strikingly the rate for colds among the general population, as is indicated in a parallel rise and fall of the two curves throughout the year. Density of crowds and prevalence of colds are the two important factors influencing pollution of the air by bacteria originating in the human respiratory tract, but of the two the latter seems to have the greater importance."

GASEOUS INDIGESTION*

CLIFFORD O. RICHEY, M.D.
EVANSVILLE

It is interesting to note in reviewing the *Index Medicus* of 1939-1940 and 1941 to date, and each issue of *The American Journal of Digestive Diseases* for the same period, that not one article was found on gaseous indigestion *per se*. This is not difficult to understand when we approach the topic, knowing that it is not a disease entity but a common symptom complex manifested by an extremely large group of patients. These patients are by far the most common and largest group consulting the general practitioner, the internist, and the gastroenterologist. Hence, the need of admonishing ourselves of our responsibility in the handling of this virtual army of patients.

The late Dr. Charles P. Emerson, a teacher twenty-two years ago, made a statement along these general lines: The competent diagnostician must know not only syphilis and its various mimicking symptoms, but must also know in detail the sympathetic and para-sympathetic nervous systems and their relationship to physiology and disease. True as it was in that day, how much truer it rings in our ears today, particularly when one considers its association with the splendid research work done in this field since then and our contemporary thought and practice in intestinal management.

Gaseous indigestion is a symptom complex manifested by abdominal flatulence, with distention and pain, and is caused by or associated with any disturbance of the digestive function from the mouth to and including the rectum. It is also a symptom complex manifested in many organic diseases. It appears from physiologic studies that gas is continually getting into the bowel and is constantly being excreted through the lungs. In the healthy person this process is so well balanced that there never is any distress and rarely any excess flatus. The next question is, how does this balance get upset so that flatulence can arise? The facts brought out should make one look for flatulence in any condition which leads to the following:

I. *Greater swallowing of air*—This is not a common condition but must not be overlooked. Many patients of this nervous temperament will froth their saliva, swallow air while chewing both food and gum, and swallow air while drinking water or milk. The chewing of gum, however, seems to relieve indigestion in some people. By constantly swallowing they can perhaps relax spasm in the stomach. They can thus drive downward the waves that are trying to run up the esophagus, and can speed up gastric emptying and the passage of waves and material down the bowel. The use of chewing gum after operations is beneficial in that it keeps the mouth clean, the parotid glands active, and starts up intestinal peristalsis; hence, it is used in passengers on airlines to relieve nausea and to combat the tendency to vomiting seen in some passengers.

II. *Slowing or stoppage of the intestinal current*—A slowing of the intestinal current can cause trouble, not only because of the resultant failure of the bowel to pass on the unabsorbed nitrogen, but also because of some other disturbance in function not yet understood. It is a curious fact that many nervous persons who suffer from an irritable colon dread formal dinners and public gatherings because they know that when a call of nature has to be deferred the colon is likely to fill rapidly with gas. That this gas is not swallowed air coming from above is indicated by the fact that the minute the rectum is emptied, perhaps of a small plug of feces, a vicious circle is broken and the formation of gas in the lower bowel stops. Curiously, the gas formation also stops when the patient goes to sleep at night. This suggests strongly that nerves have much to do with the process. A little opium or codeine will often put a stop to this nervous type of gas formation. Here must be mentioned the large group of constipated patients and those having alternating constipation and diarrhea, ranging from atonic constipation to ulcerative colon, also incomplete volvulus in its many forms—in fact any colon or small intestinal occlusion falls into this group.

III. *Interference with digestion*—Mention should be made of all the secretive disturbances, such as the chronic stomach conditions ranging from chronic gastritis to linitis plastica, the organic diseases of the stomach most commonly seen—ulcer and carcinoma, gall bladder disease, pancreatic disease, duodenitis and regional ileitis, and the many eliminative disorders.

Cellulose, not starch, is the most common cause for fermentation, by interference with proper absorption and proper motor activity of the bowel.

Food allergy plays a big role. In these patients a small amount of the offending food or its extracts causes a large amount of fermentation and gas, associated with a general upset intestinal tract.

Flatulence is commonly associated with diarrhea, in which case it may be produced in a number of ways. There may be a failure of digestion, or of the absorbing power of the mucosa, or split products of food may be rushed too fast into the lower part of the small bowel and colon, where they do not belong and where they may be turned into gas. The intestinal flora may be changed. Flatulence is

* Read before the Section on Medicine of the Indiana State Medical Association at Indianapolis, September 24, 1941.

at times caused by the presence of protozoal parasites in the bowel.

IV. *Interference with intestinal absorption*—Many of the above conditions overlap into this group. In addition, thyroid diseases and diabetes can be mentioned. Here a big factor in lessening the amount of absorption of gas is a lowering of the tonus of the muscle lining the bowel. For that reason the giving of pilocarpine, which increases this tonus, may double the rate at which gases are absorbed. Saline laxatives increase gas formation, hence the use of castor oil by the roentgenologists.

V. *Interference with intestinal circulation*—Here may be mentioned the conditions affecting the portal circulation, namely, liver diseases, gall bladder disease, cardiac disease, and also any lymphatic involvement of the mesentery, and pregnancy.

VI. *Interference with the gas carrying powers of the blood*—Here the various anemias and anoxemias may be mentioned.

VII. *Interference with exhalations from the lungs*—This includes all pulmonary diseases, especially pneumonia.[1]

Fries found, in a healthy man, that single discharges of gas varied from 50 to 500 cc., with an average of about 100 cc. About a liter of gas was passed daily. It was odorless and burned with a slightly luminous flame. The percentage composition by volume was: carbon dioxide 10.3, oxygen 0.7, methane 29.6, and nitrogen 59.4. Ruge's analysis showed percentages of nitrogen ranging from 10 to 64 per cent.[1]

Zinitz and Lacke concluded from their studies on the rabbit that from ten to twenty times as much intestinal gas is excreted through the lungs as is passed through the anus.[1]

In infants the largest amount of gas is found in the stomach and small bowel, whereas in the adult the largest amount is found in the colon.

It is interesting to note the difficulty a patient has in locating the gas which is causing the discomfort. Many patients will complain that shortly after eating their stomach is distended with a large amount of gas, and that they have an extremely full feeling. On x-ray examination a large amount of gas will be found in the splenic flexure of the colon, with very little in the stomach. Many cases of diffiuse abdominal bloating are not due to excess gas but are caused by increased water content of the abdominal organs. This is proved by administering morphine sulphate, one-fourth grain hypodermically. In fifteen to twenty minutes we find the abdomen flat and flaccid, with very little or no gas passed per anus. This explains the relief from the so-called gas pains experienced postoperatively, for x-ray shows no excess gas at the time these patients are at the peak of their suffering. It has been shown that in the gaseous exchange of the bowel gas with blood plasma, carbon dioxide leaves the bowel with the greatest ease and rapidity, oxygen next, and nitrogen last.

We are often asked, and it is a topic of interest and comment among gastroenterologists and proctologists at national meetings, "Why are we seeing more dysfunctional intestinal conditions now than formerly?" Most men agree that several factors have played and are now playing an aggravating and etiological role in these cases. The following are named in order of their importance:

I. *The irritant factor:* The vicious American cathartic habit spurred on, for the most part, by pernicious radio programs, newspaper advertising, mineral springs, etc. It is also being abetted, I am ashamed to admit, by many of our confreres in the medical profession.

II. *The neurogenic factor:* Our autonomic nervous systems have been subjected to a terrific beating in the past twelve years, starting in 1929 with the stock market crash and the resultant depression, a few years reconstruction period, with its business and economic uncertainty, and then World War II and the general anxiety of today. Combine the above with our fast tempo of living, and it makes us appreciate the large number of dysfunctional states of the intestinal tract brought to the surface by the above events.

III. *Ignorance and lassitude of the general public:* First, ignorance and lassitude in the proper use of well balanced diets, using instead the many faddistic diets which are periodically thrust upon the public. Second, the failure to practice a regular time of going to stool in order to establish and keep strengthened the normal fecal reflex for bowel emptying. Third, and last, the lack of attention to the proper amount of physical exercise, either overdoing or underdoing this, and disregarding age and physical build. In these cases nothing excels a good brisk, daily walk—forget the automobile occasionally!

MANAGEMENT

In consideration of the above statements and the conditions mentioned, we can readily see the importance of a complete study and careful examination of these patients.

These patients complaining of gaseous indigestion, by and large constitute a vast group of patients who go from one doctor's office to another, then after a period of time consult osteopaths, chiropractors, naturopaths, and finally try all of the many advertised patent remedies for the relief of their gaseous indigestion. Why should this occur? We must give ourselves some just self-criticism. In the past, especially, and to some extent today, when these patients present themselves a few questions are asked and a somewhat perfunctory physical examination is made. Then comes the barrage of therapy, including stomachics, alkalies, carminatives and irritant physics. Some mention is made of diet and rest. After several weeks of this shotgun therapy, with very little or no improve-

[1] Walter C. Alvarez, M.D.: An Introduction to Gastroenterology, 3:563-588, 1940.

ment, we hastily decide that the patient is a neurogenic, psychasthenic, or that he falls into the hysteroid group. The patient is then advised to change his vocation or at least take a vacation and forget his troubles. After the patient tries this for a period of time and finds his gaseous indigestion is still with him, he starts the above mentioned tour of doctor's offices, and on down the line.

It is granted here that a small group of unfortunate individuals do exist who do not have the physical, mental and nervous status to meet the many problems of life, but in this vast group of sufferers from gaseous indigestion they represent a very small percentage. If time does not permit during the busy office hour for a complete study, by all means make a special appointment and be most thorough in the survey of these patients.

For the successful management of these patients, a complete history is essential. This should be followed by a complete physical examination, including proctoscopic and sigmoidoscopic examinations; the usual laboratory work and any special tests that may be indicated; and at least a barium enema of the colon, but preferably a complete gastrointestinal x-ray, including the gall bladder. A stool analysis must always be done, and in many cases a gastric analysis should be made. After a definite diagnosis is made, the three R's of successful bowel management come into the picture, namely, reassurance, relaxation, re-education.

By spending an additional thirty minutes in explaining to the patient the underlying cause of his trouble, how it affects him, and the type and approximate length of time required for his treatment, one can easily obtain full cooperation of the patient. In this manner, an attempt is made to cure or at least control his organic disease, reestablish his physiology and restore his health, thus making him a useful unit to society. As was so aptly stated by Dr. Andreeson, of Brooklyn, New York, at the Louisville meeting of the Southern Medical Association, "The doctor who doesn't properly train and equip himself for a thorough study and handling of these patients is missing a most intriguing phase of the practice of medicine."

CONCLUSIONS

I. A complete knowledge of the normal and abnormal physiology of the many flatulent states is essential armamentarium.

II. Consideration and recognition of the organic diseases which may produce flatulence.

III. The extreme importance of a complete and thorough survey and management of these cases.

SURGICAL LESIONS OF THE KIDNEY—THEIR DIFFERENTIAL DIAGNOSIS, WITH A NOTE ON MANAGEMENT*

ERNEST RUPEL, M.D.
INDIANAPOLIS

Surgical lesions of the kidney occur oftener than is generally suspected. Many of them, therefore, are more advanced than they otherwise would be if their presence had been looked for earlier. Because some lesions have become surgical, which could have been prevented by early treatment, this discussion will concern itself largely with the problems of diagnosis and early treatment rather than surgical technic.

Briefly then, let us evaluate the status of a patient who has been having vague abdominal distress and has the appearance of being handicapped by an infection somewhere, although nothing definite has been determined. Among the findings is that of the presence of white cells in the urine. There is a lead, and a good one. Normal urine does not contain white nor red cells. When white cells are found, they are most probably the result of a colon bacillus infection and, if so, will yield to the amazing powers of sulfathiazole. If you are not aware of the urinary antiseptic properties of this drug, let me urge that you become familiar with it. There is reason to believe that as little as five to ten grains a day is sufficient to destroy the colon bacilli in the urinary tract, and slightly larger doses will kill most of the other organisms. The response to treatment is immediate; the plan is conservative. When such treatment is tried, if there is no noticeable improvement in the condition of the patient, or if the pyuria persists, or a good result is followed by a relapse, the patient needs urological study.

Although it is often of little help in such study, some information may be gained by intravenous pyelography. But let me emphasize that intravenous urograms are frequently too indefinite for anyone to guess at. Good retrograde pyelograms will eliminate the guesswork. If good pyelograms indicate that there is no appreciable damage to the kidney, the patient may be told that his kidney has a good chance of being saved if he will keep himself under observation, so that his physican can detect any recurrence of the urinary infection and get it under control before irreparable damage supervenes. Early damage at least can be detected, and early surgical intervention may be recommended to relieve stasis or correct other physical deficiencies.

An impartial evaluation of intravenous pye-

* Read before the Section on Surgery of the Indiana State Medical Association at Indianapolis, September 24, 1941.

lography, in my opinion, is that a good clear-cut delineation of the urinary tract showing a *normal* or an *abnormal* condition is worth something, but anything less than sharp delineation leaves as much to be desired as that of a roentgenogram made to determine the presence of a fracture when the suspected area is entirely off the film.

Let us now evaluate kidney injuries and comment on their differential diagnoses. In the first place, such injuries are rare in comparison to injuries of other tissues. They are caused most often by a severe blow over the loin or even the abdomen; although surprisingly insignificant accidents have been known to injure the kidney. After any accident, therefore, a surgeon should look for evidence of kidney damage. Among these the most significant symptom is hematuria. This, in conjunction with tumor or ecchymosis, or both, in the loin strongly suggests that the blood comes from the kidney. A condition in which there has been trauma to the bladder, bony pelvis, or external genitalia may produce some confusion in the diagnosis, but without such confusion kidney injury must be suspected and the case calls for alert nursing care, with most careful observation. Some urologists believe that hematuria presumed to be caused from an injured kidney, persisting for more than twenty-four hours without other alarming symptoms, demands immediate surgical exploration but with these gentlemen I cannot go the distance. I take that stand because the majority of renal injuries are uncomplicated, and of these cases some seventy-five per cent will produce a hematuria that will last a few days at least, perhaps four or five. As long as the blood is present in the urine, however, there is sufficient cause for concern, and the surgeon should be on his guard so that he may anticipate additional evidences of serious damage. When the amount of blood loss is actually excessive, an intravenous pyelogram may clearly show a ruptured kidney, and this finding, with signs of progressive anemia together with an increase in the pulse rate that is counted every two hours or less, is sufficient evidence to warrant a surgical exploration of the kidney. A transfusion, or multiple transfusions, of whole blood before the operation is strongly recommended. Furthermore, it is imperative for the surgeon to know that the patient has a functioning kidney on the other side. He may never have seen the patient before, and to know that the opposite kidney is reasonably good, or bad, may be the deciding factor in his performing a nephrectomy. Should the surgeon have the opportunity to follow a course of watchful waiting and a situation supervenes in which urosepsis is evident, the kidney area must then be explored. The same may be said for a condition in which loin tumor and its tenderness is definitely increasing. To recapitulate, all kidney injuries call for alert observation but, fortunately, the vast majority are actually minor and will go on to complete recovery of their own accord. So will most injuries where severe damage has existed. Only when persistant hemorrhage, perinephric infection, or urinary extravasation seems certain should exploration be made. But it must, by all means, be made then.

The differential diagnosis of urinary obstruction and appendicitis demands equal consideration. The greatest difficulty lies in differentiating the mild or recurrent types of appendicitis from the condition in which a calculus produces only slight impaction without infection. Especially is this true when the inflamed appendix is retrocecal. Typical attacks of renal colic do not offer much deception, especially when contrasted with typical symptoms of appendicitis, but the following table may be of some help:

STONE	APPENDICITIS
Pain: C. V. angle—loin—groin—testis, or vulva—inner side of thigh	Generalized over abdomen and at McBurney's point
Character of Pain: Severe + + + +	Pain +
Requiring Opiate: Yes + +	No
Rigidity of Muscles: No	Yes
Vomiting: Yes (or no)	Yes (or no)
Fever: No (too slight)	Yes
Leukocytosis: No (too slight)	Yes
X-ray: Stone shadow	No shadow
Hematuria: Yes (except in complete block)	No (except in nephritis or paraureteritis)

If in doubt resort to urological study. I know of no urgency sufficient to excuse any surgeon from considering carefully the above points in differential diagnosis and exhausting all of them, if necessary, to clarify the picture.

If the symptoms suggest a diagnosis of urinary calculus and a roentgenogram proves it, granting that the patient does not have both urinary obstruction and appendicitis, the following suggestions will cover the uncomplicated situations.

First, most stones make themselves known while their actual size is insignificant, but they block off an unsuspecting ureter just as effectively as the larger stones. Regardless of their size, they command the respect of the patient and the physician alike, and if the stones are small and are given time, they will likely pass out of the system. Therefore, on finding a stone which is less than 0.5 cm. lodged in the ureter, the patient should be given an opiate of sufficient power to relieve his pain, adding an antispasmodic, such as atropine (not more than a seventy-fifth of a grain a day). Also give about one gram of sulfathiazole a day to kill off any enterprising bacteria that may attempt to gain a foothold during the period of urinary stasis. A little patience on the part of the possessor, as well as the physician, will likely be rewarded by the passing of the calculus. But, this injunction must be made: any calculus, however small, when once located becomes a marked character and must be stalked to his capture or elimination, and when it persists in maintaining its position within the urinary tract, it must be shown the way out or taken in hand before extensive kidney damage ensues.

From these remarks let us gather that to perform its duties the urinary tract just must be kept open; that it will best perform when free from infection, that a combination of these conditions leads to irreparable damage, necessitating nephrectomy, and that early recognition of kidney pathology makes for a better prognosis.

DISCUSSION

THEODORE R. HAYES, M.D. (Muncie): One of the most perplexing problems that confronts the medical profession at large is an accurate and complete diagnosis. It would seem that a well-informed surgeon should distinguish with relative ease whether a lower right abdominal pain is due to appendicitis or some pathology in the urinary tract. Unfortunately, however, a large number of the patients do not conform to the standard textbook picture.

I agree heartily with Dr. Rupel that the occasion is quite rare when it becomes necessary, in a case of doubtful diagnosis, to remove the appendix before a complete study of the patient can be accomplished. According to the hospital records, many appendices are sacrificed on the altar of mistaken diagnosis, and probably in rare instances an ailing appendix may be allowed to rupture because of urinary findings or some other misleading sign or symptom.

An excretory urogram, in case of a doubtful diagnosis, may be better than nothing, but has very definite limitations as a diagnostic aid when compared with the cystoscopic examination and retrograde pyelogram.

My experience with traumatic injuries of the kidney has been limited, but the ones that I have seen have not required radical treatment, in fact I have used no treatment except bed rest and acidification of the urine. From this limited experience I find that I can not agree with the author of a paper that I read recently who explored the kidney in ninety-nine instances in a series of a hundred consecutive cases.

The modern thought regarding persistent evidence of urinary tract infection makes it mandatory that the causative lesion be located and remedied if possible. If after a reasonable trial with sulfathiazole therapy, in the large majority of urinary tract infections, there is not a complete subsidence of urinary findings, a careful, detailed examination of the urinary tract will usually, if not always, reveal the cause of the pyuria. In the present day of scientific medicine it is possible and feasible in nearly every locality to determine the species of the infecting organism. If it is not convenient to obtain a culture of the catheterized urine, it should be possible to study a Gram's stain of the urinary sediment, which will help us deal more successfully with the infection at hand.

Dr. Rupel has extolled the virtues of sulfathiazole, and I agree with him that it is a most wonderful drug. I must admit, however, that occasionally I encounter a case of colon bacillus infection in the urinary tract which does not respond promptly to this drug, but which does clear up rapidly on mandelic acid administered with the recommended details as to acid ion concentration of urine and volume output.

A stone passing down or lodged in the ureter often presents a difficult problem to the clinician, as well as an intensely painful condition to the unfortunate patient. There are two commercial preparations obtainable which are purported to have antispasmodic action on smooth muscle, which when administered tend to relax ureteral spasm, thereby relieving pain and facilitating the passage of the stone. One of these drugs is trasentin and can be given orally only, and the other is depropanex, which can be given subcutaneously. I still have doubts as to the merits of either drug, and still rely chiefly on morphine and atropine.

So-called "conservative renal surgery," that is, surgery designed to conserve the functioning renal tissue, has been practiced to a limited extent for a number of years, but this phase of the care of the urinary system has recently become more popular, and probably rightly so. I refer to the numerous plastic operations that are done on the kidney pelvis, ureters and ureteropelvic juncture, and of the operation of more limited applicability, caliceal resection.

ABSTRACT

COMPLETE IMMOBILIZATION NOT INDICATED FOR POLIOMYELITIS

According to evidence regarding the nerve supply of muscles paralyzed by poliomyelitis, massage and freedom of movement rather than immobilization are clearly indicated in the treatment of this condition, an editorial in *The Journal of the American Medical Association* for December 6 points out.

"Several years ago," *The Journal* says, "Sister Kenny recommended that free movement should be allowed and that affected muscles should be accorded the benefit of massage and passive movement instead of immobilization. It should be pointed out in this connection that there is no experimental evidence to support the contention that single muscle units might, as a result of appropriate manipulation, be encouraged to send their nerve fibers to muscle fibers which have been rendered atrophic by anterior horn cell degeneration. Normal units, however, become atrophic under conditions of immobilization, since muscle fibers are dependent for normal stimulation on their local reflexes (e. g., stretch reflexes) and immobilization arrests the flow of these proprioceptive impulses as effectively as it abolishes the flow of lymph. Massage and freedom of movement, therefore, are clearly indicated if all available motor units in paretic muscles are to remain at their maximum physiologic capacity.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis

Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis....Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend....Dec. 31, 1944

JANUARY, 1942

Editorials

CIVILIAN DEFENSE

This subject has been much discussed for some months past as a part of the National Defense program. Rather indefinite plans were being considered, looking to the protection not only of those at home but also a defensive program covering the vast industrial areas, most of which are engaged in the manufacture of war material. With the onset of actual warfare, the program is being speeded up and it is hoped that in a short time the defense program, nation-wide in character, will be in full operation.

The President advises that this probably will be a long war, one that will require the active support of every citizen in our Nation. Our present enemy, the Imperial Japanese Government, has definitely indicated that the Japanese will stop at nothing; they have long since proved that they cannot be trusted in diplomatic affairs, and it is reasonable to suppose that in warfare they will continue their ruthless program in order to gain their goal. Germany and Italy have also definitely entered into the fray, adding materially to our problems.

The fighting forces of the country are put to it to plan and carry out a program of defense and aggression, not only in the Pacific areas but probably in the Atlantic and in Continental Europe. These groups will have little time for the consideration of civilian defense; that part of the program belongs elsewhere.

During these trying times the health of the people of this country is of more than usual importance; health hazards will be more commonly met, that is always true in time of war. As has been so well stated, The first step is to establish in each community a competent organization responsible for the formulation and supervision of emergency medical and health activities as a part of the Civilian Defense Program.

The Indiana State Medical Association has had this subject under consideration for several months, endeavoring to work out some plan to cover the needs of the entire state. Certain other state associations, notably Ohio, have spent considerable time on such a program. Their plan calls for the appointment of a local chief of Emergency Medical-Defense, who is to be responsible to the chairman of the Local Defense Council. Such a set-up links the local medical society with the program, which is as it should be. It is their plan also to have another physician on this committee, together with a representative from the nurses' organization, the local hospitals, the various health departments in the county and the Red Cross; also a pharmacist, a dentist and a mortician. The general duties of this group will be to meet the various emergencies that may arise. This would seem to be an elastic, feasible plan, one that would fit in most any community. One of its outstanding recommendations is that it is a simple plan, yet it embraces every agency that might be called upon in the various emergencies that may arise in these troublous times.

As has been the case in every emergency in years past, the Indiana State Medical Association is on the alert in this instance. Already plans are in the making for the enlistment of a full complement of physicians in each of our county societies to carry out all orders in this connection. Many of our local societies have for some time been making plans for such an emergency.

One fact remains, however. Each individual physician must expect to be called upon for duty of some sort; many, of course, will be called into active service in the various branches of the war services; and those who are elected to remain at home will find numerous duties laid upon them. We must all do the things we are asked to do. Indiana Medicine never has failed to do its part in any assignment, and in the present instance we believe we speak for the entire profession of our State when we say, "We are ready!"

MAN PROPOSES — THE LAW DISPOSES

We are all familiar with numerous instances in which much time is spent in studying the requirements necessary in planning for the control of various evils via legislative channels. Commissions often are organized to make such special studies, spending long hours in formulating the suggestions that lead to the enactment of laws by our state legislatures. But all too often such

labor goes for naught, being upset by the legal machinery of the state.

Such is the case with the "Marriage License Law," enacted some time ago by the Indiana General Assembly. Much time was spent by the Governor's Commission in the study of the needs for such a law and in determining just how the various "Gretna Greens" of our state might be circumvented. We well recall that in these discussions the members of the Commission definitely had one thing in mind—a period of delay in obtaining a marriage license. Therefore, they recommended that blood specimens and the laboratory reports should be sent through the United States mails; it was thought that such a requirement would insure a delay of approximately three days, which would seriously interrupt the hasty marriages that had brought unsavory attention upon our state.

But we had reckoned without taking into consideration the fact that certain county officials, who long had prospered exceedingly well by means of this "Gretna Green" business, together with the numerous justices of the peace and other hangers-on—such as the "marriage parlor" steerers, etc.—would not willingly give up this "fat take."

The law had no sooner been enforced until these gentry got their heads together to see what could be done to circumvent the intent of the law—and they did exceedingly well at this task. By virtue of special messengers between the county seat and the laboratory in other cities, plus an ingenious plan of using private postoffice boxes and the special delivery service, it was possible for a couple to obtain a license within a period of about five hours. That practice seemed to have been effectually broken up, what with the action taken by medical societies in the local areas and the revoking of the approval of a southern Indiana laboratory by the State Board of Health. However, in Lake County, where the real "marriage mills" were located, a new plan was devised whereby a matter of two hours was sufficient to procure the coveted license, although the attendant expense was somewhat heavy.

The State Board of Health, endeavoring to curtail the operations of this plan, issued an order to the effect that reports of blood checks be mailed only after a twenty-four hour delay. This plan, of course, would have been most effective, but along comes the opinion of the Indiana Attorney General that such a rule is not within the law.

Hence we are again just about back to the starting point; the law was *intended* to circumvent the things that were being done, but intent sometimes is not reality. Now, there remains but one thing to do, to persuade offending physicians, those who are conniving with county officials in this thing, to refrain from such practices. It would seem, therefore, that the enforcement of the *intent* of the law is placed squarely before the local medical societies. This is just another instance in which Indiana Medicine is asked to *enforce* a public health measure!

RATIO OF PHYSICIANS FOR WAR AND HOME FRONT

War has overtaken our Democracy. The Association's spontaneous all-out efforts should convince political medicine advocates that there is no substitute for private practice. Every one of Indiana's 4,177 physicians is anxious to do his part. As military service involves sacrifices and long-range planning, naturally we would like to know our chances.

In the December 13 issue of *The Journal of the American Medical Association,* President Lahey disclosed the preliminary plans for mobilization of physicians. Health Defense Director Paul McNutt and the Surgeons General of our armed services approved Dr. Lahey's program. As a present policy our Army asks for 6.7 physicians per 1,000 soldiers. At that rate an army of 4,000,000 would require nearly 27,000 physicians, which is nearly one-fifth of the number of practicing physicians in the United States.

It may be unwise for the Government to maintain so high a ratio for the year of 1942 for the following reasons: First, it would mean that 4,000,000 hand picked healthy young men would require twenty per cent of our total physicians, while the 128,000,000 remaining people would have to get along on the remaining eighty per cent. In other words, it would provide each soldier with almost seven times the number of physicians that the plan would allot to each civilian. Secondly, in World War I such a ratio was reasonable as most of our forces were overseas, or were preparing to go overseas during the year, and Army physicians had to be in the field. It is unlikely that as many as a million soldiers will cross any ocean during the year 1942. But it is self-evident that 1942 must be given over largely to industrial preparation of the equipment for war, not only for the United States but for England, Russia, China, Mexico and the South and Central Americas as well.

Should this ratio of seven physician units per soldier against one for the industrial worker be invoked during 1942, it is apparent what a setback our preparedness would receive should an influenza epidemic sweep the nation as it did in the first and second years of the first World War. With the overcrowding of the new industries and the migration of defense workers into new communities and into new defense home projects, the chances of the spread of contagious diseases present a hazard approaching that of the assemblage of mixed groups of city and country boys in the Army camps of 1917 and 1918. Then influenza and meningitis seriously threatened our initial war efforts.

We are sure that the Lahey Committee, Director McNutt and the armed services will recognize this weakness in the 6.7 ratio if extended at that rate during 1942. To cope with these possibilities, may we suggest that the Procurement Board provide a very flexible register of reserve medical officers; that they train as many at home as possible, particular-

ly in the heavy war industrial areas rather than mobilize them into camps, as was the case in the first World War. There are far less reasons to train physicians to march and ride horses and to perform the many stunts that the United States Army insisted upon in the training of medical officers in 1917 and 1918. In retrospect, the proportion of time given over to that type of training now seems hard to justify in view of the subsequent medical duties which differed but little from routine civilian private practice of medicine.

There is, of course, an alternate method of enlisting all physicians and sending them as medical officers to industrial areas in the capacity of Army or Navy physicians. However, such a dislocation would be not only extremely disturbing to individual physicians, but would be a definite step toward political medicine and would be obviously unwarranted. Furthermore, it has long been demonstrated in Indiana that one or two physicians and surgeons in each large industry, acting as full-time directors, allotting the overflow cases to the private physicians of their communities, has proved so successful that the substitution of untried methods would be sheer folly.

Therefore, a preliminary analysis of the Hoosier physicians' probable assignments in 1942 suggests that there will be far fewer dislocations of private practice than might have been expected. Furthermore, it seemed likely that most of the physicians of middle age or over will remain in their respective communities and continue their private practices. Evidently there is great likelihood of their being registered, evaluated and held in reserve by the Government for services afield in 1943 and 1944.

Incidentally, remarkably ingenious plans, in which merit as well as the financial and social obligations of each Hoosier physician are given due consideration, have been evolved by Dr. Alfred Ellison of South Bend, Dr. Floyd T. Romberger of Lafayette, and Dr. E. H. Clauser of Muncie. Copies of these plans have been sent to members of the Procurement and Assignment Board.

Since this article was written the Navy has suggested conscripting a half million men. As they employ a 6.5 ratio, and the majority of medical officers need be in the naval field, that extension would require three thousand additional medical officers, which would not affect Indiana's set-up appreciably.

Volunteer blank on page thirty-eight

SOME SLIGHT SILVER LINING

Practically every doctor, no matter how old or young, is committed to certain financial obligations which make it doubly difficult for him to go into military service. Not the least of these obligations are taxes, insurance, mortgages and rents. In order to alleviate somewhat this strain from one who joins the armed services, Congress, in 1940, passed the "Soldiers and Sailors Civil Relief Act" ". . . to promote and strengthen the national defense by suspending enforcement of certain civil liabilities of certain persons serving in the Military and Naval establishments."

In regard to insurance, the act states:

Sec. 405. No policy which has not lapsed for the nonpayment of premium before the commencement of the period of military service of the insured, and which has been brought within the benefits of this article, shall lapse or be forfeited for the nonpayment of premium during the period of such service or during one year after the expiration of such period: *Provided,* That in no case shall this prohibition extend for more than one year after the date when this Act ceases to be in force.

The provision concerning property taxes reads:

Sec. 500. (1) The provisions of this section shall apply when any taxes or assessments, whether general or special, falling due during the period of military service in respect of real property owned and occupied for dwelling, agricultural, or business purposes by a person in military service or his dependents at the commencement of his period of military service and still so occupied by his dependents or employees are not paid.

It continues in regard to income taxes as follows:

Sec. 513. The collection from any person in the military service of any tax on the income of such person, whether falling due prior to or during his period of military service, shall be deferred for a period extending not more than six months after the termination of his period of military service if such person's ability to pay such tax is materially impaired by reason of such service. No interest on any amount of tax, collection of which is deferred for any period under this section, and no penalty for nonpayment of such amount during such period, shall accrue for such period of deferment by reason of such nonpayment.

We suggest that any doctor going into service write his Congressman or Senator for a copy of the Act under the title "Public No. 861, 76th Congress, Chapter 888—3rd Session S 4270."

A CALL TO THE MEDICAL PROFESSION

(The following editorial is reprinted from the December twenty-seventh issue of *The Journal of the American Medical Association* and warrants the attention of every physician. The Enrollment Form for Procurement and Assignment Service for Physicians will be found on page thirty-eight.—Editor's Note.)

"The nation is at war. The Congress has passed an amendment to the Selective Service Act which will call for registration of every man up to the age of 65 and which will place all men under 45 years of age subject to service at the order of the Selective Service boards.

"The Procurement and Assignment Service for Physicians, Dentists and Veterinarians was established by order of the President on October 30. Thus the medical profession itself aids in determining proper distribution of the medical profession in supplying the needs of the armed forces and maintaining medical service to civilian communities, public health agencies, industrial plants and other important needs.

"At a meeting of the Procurement and Assignment Service held in Chicago at the headquarters of the American Medical Association of December 18, jointly with the Committees on Medical Preparedness of the American Medical Association, the American Dental Association and the American Veterinary Medical Association, plans were drawn for making immediately available to the United States Army and Navy Medical Corps the names of physicians who wish to be enrolled promptly in the service of the government in this emergency.

"In this issue is published a blank by which every physician may at once place his name with the Procurement and Assignment Service as one who is ready to serve the nation as the need arises. If you wish to make yourself available for classification, fill out this blank and send it at once to Dr. Sam F. Seeley, Executive Director of the Procurement and Assignment Service. When these blanks are received, they will be classified and checked with the information available in the national roster of physicians at the headquarters of the American Medical Association.

"For two thousand and nine counties in the United States, lists have been prepared indicating physicians who are engaged in necessary civilian projects, public health services or educational activities from which they cannot be spared. Shortly the rest of the counties will have such lists available.

"In each of the corps areas covering the United States a committee is being established, including representatives of medical, hospital, educational, dental and veterinary activities. In the individual states, committees of medical, dental and veterinarian professions are being established through which the corps area committees will exercise their functions. In each county also local committees will provide accurate information regarding the status of each member of the profession concerned.

"The raising of the Selective Service age from 28 to 45 will place a great number of additional physicians in the category of those on whom the nation may call as their services are needed. Estimates indicate that some sixty-thousand physicians thus become available for service and that forty-two thousand dentists under the age of 45 also become subject to call. By enrolling with the Procurement and Assignment Service immediately, utilizing the blank in this issue, all physicians, but particularly those under 45 years of age, insure to every extent possible assignment to the type of service for which they are best fitted. They avoid thus also the possibility of unclassified service with the United States Army during the period that may be necessary following selection by the Selective Service before the commission can be secured. A physician called by the Selective Service who has not enrolled or who is not on a reserve list obviously serves without a commission during the time that necessarily elapses before a commission is secured. In future issues of *The Journal of the American Medical Association* announcements will be made regularly of the numbers of those who enroll and of the extent to which the immediate needs of the Army, Navy and other government agencies are being supplied."

May Your New Year Be
Happy And Prosperous

Editorial Notes

100% SOCIETIES

RANDOLPH COUNTY—V. K. Stoelting, Secretary
SULLIVAN COUNTY—James B. Maple, Secretary
WHITLEY COUNTY—O. F. Lehmberg, Secretary

State Board of Health officials aver that we face a mild epidemic of diphtheria this winter. They also take occasion to point out that diphtheria is a preventable disease. It would be well to emulate the example of Monroe County as described elsewhere in this column.

Evarts Graham, well-known St. Louis physician, made the following statement in a recent address:

"Not in a thousand years has civilization been faced with a threat of extinction equal to that which now exists in the appalling possibility of Hitler and his Nazi barbarians."

Mosquito-time is quite some months off, yet we are advised by State Board of Health officials that we may expect an increase in malaria, come next summer. For the past two or three years there have been sizable epidemics in several sections of the State, and it would be well to begin plans for mosquito control.

At the United States Pharmacopoeial Convention it was announced that while the United States patent on insulin expired as of December 24, 1941, arrangements have been made whereby insulin that is safe for diabetes is assured. This organization has set up standards for the production of this valuable drug and will see to it that the supply available is thoroughly reliable.

A recent number of *Selective Service*, a publication from the national headquarters of this organization, announces that plans have been made for the correction of minor defects of some 200,000 men, all of whom were given a classification of 1-B at the time of their examinations. The plan calls for local physicians to care for these cases, and they are to be paid for their work.

Still another Indianapolis quack has felt the sting of the law, this one for a violation of the Medical Practice Act. Sam Harris, said to be a long-time offender, was recently haled into an Indianapolis court and fined the sum of $150. Sam seems to have specialized in diseases of women, and reports are to the effect that he found many of this sex to be quite gullible.

Samuel Pettingill, former representative in Congress and now a practicing attorney in South Bend, continues to flay the socialized medicine New Dealers in Washington and elsewhere. In a recent address before the local District Medical Society, he stated that "the same band of sophomoric experimenters—referring to the New Dealers—has sought to dominate the medical profession and to control that progressive, ethical organization."

Efforts are again being made in Indiana to revive interest in non-profit hospitalization insurance. For some time this movement seemed to gain in public favor, then for one reason or another, interest lagged and now a revival campaign is taking place. There can be no question but that such insurance does relieve the family budget burden to a great extent, and in most sections where the plan has been tried out it has worked with general satisfaction.

Indiana continues to claim the honor of having one of its resident farmers awarded the title of "Corn King," although this year the crown was a double one, an Illinois farmer sharing the honor. We long have become accustomed to hearing of this or that agriculturist being acclaimed "King" of something or other, so this is but an additional honor as the years go by. We might also cite the fact that the champion steer of the country, for 1941, was raised at the Purdue University farms —that is quite an honor!

The Medical School of the University of Texas has established a department for the study of tropical diseases and has sent one of its staff members to the Dominican Republic, there to make first-hand observations. As we have remarked on several occasions, tropical diseases, once quite rare in this country, are now rather commonly met—this being due to the ease of traveling into these equatorial countries—hence, it behooves American Medicine to be on the alert for these once unusual diseases.

The booklet prepared by Surgeon General Parran and his assistant, R. A. Vonderlehr, entitled "Plain Words about Venereal Diseases" seems to have caused quite a furore in certain sections of the country. The article called attention to the fact that there is a marked increase in the number of prostitutes assembled near the various army camps of the country and the allegation is made that the cities adjacent to the camps make too little effort to control this evil. Our own city of Indianapolis comes in for a very poor rating in this regard, although the health officials of the city make strong denials of the truth of this complaint. With the various clinics conducted in the city, it would seem that much of the cause for this complaint could be eradicated.

In speaking of "Colds," a down-state paper declares this infection to be Public Enemy No. 1 and goes on to say that notwithstanding all the advertising claims made by the manufacturers of various "cold" preparations, no sure remedy exists, that is, no remedy that will completely cure a cold instanter. That explains the reason why the Federal Trade Commission frowns upon any claim made to the contrary. Were it possible to quarantine every "cold" victim, keeping him caged up until the thing had completely disappeared, we would have but little of this complaint, but that, of course, is one of the impossible things.

Residents of Martin County, long-time quiet, peaceful community in southern Indiana, now have first-hand knowledge of the fact that the Nation is in a state of war. Daily they see trainloads of unloaded shells, torpedo and mine casings, and other such war materials unloaded at the Atlantic Seaboard Munitions Depot at Burns City. The loading of these affairs is completed in very short order, and the supplies are stored there until such time as they are needed for shipment to various parts of the world. In connection with this Depot a $60,000 medical center is being erected and soon will be ready for occupancy. For the time being there will be but one medical man stationed at the medical center, although he will, of course, have a full corps of assistants.

For some unexplained reason the various insurance companies writing medical defense insurance have raised their rates, causing no little comment among their policyholders. We happened to come into a "cloak room conference" at a recent medical gathering in Chicago where the subject was being discussed and were advised that men in other states were quite concerned about the matter. A few days ago we saw a letter from the home office of a large casualty company which writes a considerable number of these policies, although they do not specialize in this form of insurance. In this letter it was made clear that the company was not especially eager for this business, for it did not pay. A statement was made to the effect that until such time as members of the medical profession "changed their stance" in the matter, this form of business would be unprofitable. We took this statement to mean that until members of the medical profession ceased to foment malpractice cases, this business would not be of profit to the insurance companies and they are, of course, in the business for profit. It is common knowledge that more than fifty per cent of malpractice cases against physicians originate from some unflattering remark made by one doctor about another. It is our opinion that if *all* physicians would cease this gossipy practice, the number of such suits would materially decline and the rates for such insurance would be cut at least fifty per cent.

There never was a time when health examinations were more important than at present. The war is upon us — our Commander-in-Chief says it will be a long war — and the revelations as to the health of the young men of the nation, as disclosed by the Selective Service examinations, shows the general trend for this need. We believe that it would be well for all local societies to resurrect the campaign for complete health examinations, and by that term we mean a complete examination, not merely taking the pulse, listening to the chest, perhaps doing a urinalysis, and calling it a job, but doing a *real* examination.

In most of our colleges the entering student undergoes a health examination, and all too often the examiner finds a more or less serious health hazard, most of which can be remedied.

A recent announcement to the effect that the government's medicine cabinet is well filled brings to mind the predicament in which numerous physicians will find themselves if they fail to heed the market which is rapidly being curtailed. Even with all the pharmaceutical facilities with which this Nation is supplied, we still depend upon foreign countries for some drugs, and this supply, of course, is now cut off. Eye physicians, in particular, are concerned with the shortage of many drugs which are considered a part of their *must* list. Notable in this list of drugs is homatropine, upon which we depend in so many of our refractions. A supply of this drug is still available, but the price is mounting at a dizzy pace. We do not believe in hoarding, but we do believe in being forehanded, hence it behooves us to lay in such stocks of essential drugs as may be required for some time to come.

According to a large, blatant display advertisement in the *Newcastle Times*, Indiana has a new "clinic." A chiropractor located in that city announces to the reading public that he has opened a "children's clinic." The ad goes on to say (please note the illiteracy therein as italicized) "The clinic will be the best of its type in Indiana. Among the services rendered by the clinic will be the treatment for *malnutrician* including the *provision* of special foods needed for such cases. Spinal curvature and *deformatives* of all kinds, infantile paralysis, etc. . . . for the children whose *perents* are unable to afford, etc." There are several notable things about the advertisement: First, the man uses the title of "Doctor." He has a chiropractic license. In the minds of too many who read such truck that word means "doctor" and nothing else. Secondly, the use of the word "clinic"—that word used to mean something, now it may mean something or nothing. As a matter of fact, members of the medical profession are responsible for the decadence of the word; too often have we seen one man form a "clinic"; very commonly do we learn of a two-man "clinic."

For many years we have waged a little personal battle against the abuses pertaining to advice about myopia. This not only is a defect of vision, it is somewhat of a calamity in many instances. Too long have those who ought to know better made comment to the effect that a myopic child would soon "outgrow it"; too long have these patients been advised that the use of glasses for the correction of this trouble may be casual, when the facts are that the true myopic should wear his correction for constant use. The other day we read the newspaper story of a broadcast on this subject by a South Bend eye physician. His comment pleased us very much, for he was in entire accord with present-day knowledge and opinion on the subject. We need more of these frank, yet authoritative discussions on myopia; too often those who essay such discussions know little about the subject.

The Monroe County Health Council, under the direction of the local medical society, together with a group of interested citizens, continues a health program such as is found in no other section of the State. Just now they are in the midst of a campaign to stamp out diphtheria in that county. Early in October over three thousand children had been immunized, and within the following month 2,400 children had received preventive treatment, making a grand total of 5,500 children thus immunized. The campaign will not end until every child in that section has received these treatments. It is, of course, now generally known that diphtheria is a wholly preventable disease, the only trouble being that we of the medical profession have not sold the idea to our local folk. It is most encouraging to note that one of our smaller groups has gone at this problem in a big way, and we congratulate the physicians of Monroe County for their extreme activity in general health measures.

One of the war-time questions frequently asked physicians is, "Will there be food rationing during this war?" Folk have in mind the meatless days of World War I, together with the rationing of wheat flour, whereby one would be required to purchase a certain amount of corn meal, buckwheat flour, oat meal, etc., when ordering wheat flour. Numerous other rationing orders were issued as the war progressed, so the question naturally arises at this time. Surgeon General Parran recently observed that it *might* be necessary to ration certain foods at some time in the future until farmers could build up a reserve. However, with much of the 1940 corn crop, as well as a goodly portion of the wheat crop for the same year even now in storage and the greatly increased production of these essentials during the last year, it would seem that the reserve mentioned is already a reality. He strongly recommended a marked step-up in the production of meat and dairy products, especially cheese. Much of the latter commodity is already being sent to England.

The American Red Cross is continuing its blood plasma campaign, a most worthy enterprise and one that every physician can well afford to further. Many of our local societies have some time been planning such a plasma bank within their own locality. The Lake County Medical Society is one of the latest to announce the completion of a county-wide distribution plan, the central storage point being the Mercy Hospital in Gary. Arrangements have been completed to supply the Red Cross with much of this material in addition to the material needed for local use.

A down-state chiropractor, in defending himself against a charge of practicing without a license, offers the somewhat novel plea that he is duly qualified yet cannot meet the requirements of the state law in the matter. This seems a bit paradoxical—he avers that he is qualified yet does not meet up with the necessary qualifications! During the time the 1927 amendment was before the Legislature, as well as after its enactment, this very point was made quite clear to the drugless folk, that henceforth, in order to qualify, all applicants must be on an equal basis; must show a two-year pre-professional study plus graduation from a *recognized* school. It also was made clear to the operators of an Indianapolis school of drugless therapy that their institution could not be recognized until it met the requirements set forth by the law; that their graduates would not meet with favor from the Medical Board until this tie had been made. If the medical law is constitutional—and it has been so declared—then there is nothing to be done about it; state licenses will be granted only to those who show the proper educational background.

A court decision that will be of interest to county medical society officials about the state was recently rendered in an up-state court. A member of the local society had been cited to appear before the Council of the society to answer a charge of violating the rules of the society in the matter of participation in a scheme to evade the *intent* of the law relative to the issuance of marriage licenses. This physician was charged with being a party to a scheme whereby a couple might obtain such license within a period of less than two hours. He had been warned to desist in such practices. The Council held that he was guilty of the charges and recommended to the society that he be expelled, whereupon the doctor hied himself into one of the county courts and saw to it that the society was temporarily enjoined from taking any action in the matter. A few days later, at the hearing for a permanent injunction, the judge ruled that a county medical society had the right to discipline its membership, stating his opinion at great length, and the injunction was dissolved. Shortly thereafter the society held the hearing and the member was expelled by an almost unanimous vote.

Our attention has been directed to an editorial note, appearing on page 613 of THE JOURNAL for November, concerning the new Ohio marriage license law. The comments there made were taken from a news dispatch sent us via our clipping exchange service. It seems we were in error in certain statements we made. Dr. R. H. Markwith, director of health for the State of Ohio, has advised us of these errors and has sent us a copy of the Ohio law. The law provides that persons may give notice of intention to marry, either by publication of banns or making application to the Probate Court for a license, but before the publication of banns by a clergyman he must have in his hands the prescribed premarital examination form stating that a serological test of a blood specimen has been made in an approved laboratory, and a statement from the examining physician certifying that the person is not infected with syphilis, or, if so infected, is not in a stage that is communicable or likely to become communicable. Our comment was in error as to the legal fees required. The regular license fee is $2.00, and the fee for publication of banns is $1.00. There is no specified fee covering the services of the laboratory or the physician. We are pleased to have been corrected in the matter and take this opportunity to congratulate the Health Department of the State of Ohio in having a law that really works; we of Indiana thought we had solved the problem, *but it did not work out!*

Some time ago somewhat of a furore was created when official Washington was set to advocate the building of numerous hospitals about the country, these to be located in places that heretofore had not had such advantages. A sane, quite sensible discussion was had in the matter and it finally was determined that while more hospitals could be used efficiently, there was not the dearth that at first had been announced. Now we note that some of our social workers have announced that the State of Indiana needs eighty-six more hospitals, these with an average capacity of one hundred seventy beds. Since we have ninety-two counties in the State, the scope of these figures becomes at once apparent. The basis on which the suggestion is made is the report of the Federal Census Bureau. It is quite probable that these figures are arrived at by the Bureau via the simple expedient of applying "the rule of thumb." Under normal conditions most sections of Indiana have necessary hospital facilities available. With the modern means of transportation, comparatively few of our residents are far removed from such facilities, but with the new set-up by which the county welfare departments are to pay hospital bills for those on the various "pension" lists and at the same time have much to do with determining what cases shall be hospitalized, it is quite probable that there will be a demand for additional hospital facilities. Much of this demand could be met by increasing the size of some of our smaller county institutions, thereby cutting down the overhead to a great extent.

The following item appeared in the December fifteenth issue of the *New York State Journal of Medicine:*

THE GOOD DOCTOR

Once upon a time there was a good[1] doctor.[2] He lived in a house[3] with his wife,[4] two children,[5] and a F.H.A. mortgage.[6] He had an automobile.[7]

In the morning he took the children to school[8] on his way to the clinic,[9] where he spent the forenoon caring for the poor[10] sick people without recompense.[11]

One day[12] in the clinic[9] in the course of his work[13] he came across a lunatic,[14] who said to him:

"You think I am crazy,[15] don't you?"

"Yes," said the doctor, "I am afraid I do."

"Well, that's all right with me; would you care to know what I think of you?"

"Not particularly," said the doctor.

"It's always that way," said the poor lunatic, apologetically, "and yet kings used to listen to us, you know, in the old days."

"I know," replied the doctor who was in a hurry to get through his work, "but those days are gone and so are the kings. Besides," he added as an after thought, "they didn't pay any attention even then. Next case."

So they took the poor zany[16] to a state hospital where he got the best of everything for the rest of his life.

The good doctor got in his automobile and drove home to his office. As he put on his white coat and washed his hands before seeing the accumulated Customers[17] he shook his head and murmured, sympathetically, "The poor nut."

Moral: You never can tell.

---

[1] Term valid temporarily pending further court decisions.
[2] M.D., Ph.D., D.P.H., Mus.D., LL.D., Litt.D., D.O., D.D.S., V.M.D., ad infin.
[3] Real estate tax.
[4] Joint income tax returns required by law.
[5] Worth $400 each for tax purposes.
[6] Interest payments deductible, not payments on principal.
[7] License tax. Drivers' tax. Use tax. Gasoline tax. Oil tax. Parts tax. Insurance.
[8] School tax.
[9] From Greek Kline, a bed.
[10] A person earning less than he used to.
[11] Financial return.
[12] Saturday, March 15, 1941.
[13] Practice of medicine.
[14] From Latin Luna, the moon.
[15] Nuts.
[16] Lunatic.
[17] Patients.

The problem of undulant fever continues to attract the attention of health authorities and numerous physicians in private practice are giving due attention to this increasing infection. There are, of course, those who decry all this activity, declaring the thing is overdone and that undulant fever, while it does occur here and there over the country, is not at all common. Then, too, there are those who deny the existence of a chronic type of this disease. It so happens that during the past year at least three of our larger state medical societies held a symposium on this subject at their annual meetings. The fact that undulant fever is not at all uncommon in Indiana and that there also is a chronic type cannot be overlooked, and the sooner the Hoosier medical profession accepts these facts and does something about it, the better it will be for those afflicted.

We note that in certain sections of the State there is a growing interest for a demand of higher fees for the care of indigents. Why not? The doctor finds his living expense account mounting from month to month, and the only means he has of increasing his income is by advancing his fees. In looking over the payments allowed to the grocer, the coal man and what not, in connection with supplies furnished indigents, we note that no reduction is made in the price of their wares. There is no good reason why the physician should cut his fees one-half or two-thirds, as is so commonly the case. This particularly applies to house and office visits. There is not so much complaint in the matter of surgical bills, but we do feel that the profession is grossly underpaid for calls. We enthusiastically support any move to increase the fees for this type of work.

GENERAL LEWIS B. HERSHEY WILL SPEAK ON WAR DUTIES OF MEDICAL PROFESSION

Brigadier General Lewis B. Hershey, director of the Selective Service System, who will be the guest of honor and the dinner speaker at the Seventeenth Annual Secretaries' Conference on January twenty-fifth, is Hoosier born and bred. General Hershey will speak on "The Doctor in the National Emergency."

General Hershey was born near Angola, county seat of Steuben County, Indiana, September 12, 1893. His father was a farmer, and the General was born and raised on the family farm. His mother died when he was four years old. The General attended a one-room school house named Hell's Point School, was graduated there, then went to Fremont High School, being graduated when he was sixteen years old. That summer he fulfilled the Indiana requirements of the day concerning teachers by taking a three months' course at Tri-State College in Angola. Prior to his seventeenth birthday on September 12, 1910, he became a teacher at Dewey School near Fremont, Indiana, not far from his home. In this one-room school he was required to instruct pupils in all elementary grades.



General Lewis B. Hershey

By teaching, the General received enough money to complete his studies at Tri-State College, where he spent a total of four years, interspersing this time with teaching in country schools to pay for his own education. He received the degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Pedagogy at Tri-State College.

As soon as his age permitted, General Hershey joined the Indiana National Guard in Angola and was with that organization when it was sent to the Mexican border in 1916. Returning from the border, he went to the University of Indiana to study for his degree of Doctor of Philosophy, but his training was interrupted when the United States entered the World War. Meanwhile, he had been elected a lieutenant in his National Guard unit by his associates in that organization.

His unit, the 3rd Indiana Infantry, was reassigned to the 137th Field Artillery and sent to Camp Shelby, Mississippi. General Hershey was sent almost immediately to the School of Fire at Fort Sill, Oklahoma, for a three months' course, completed the school, received his captaincy, and returned to Fort Shelby.

After completing the Army War College course, General Hershey was sent to Hawaii, where he was stationed until the spring of 1936 when he was ordered to Washington, D. C. With his family he made a trip around the world before reporting for duty in Washington, D. C., with the Joint Army and Navy Selective Service Committee.

General Hershey was commissioned a Major August 1, 1935, promoted to Lieutenant Colonel August 7, 1940, and was raised to the rank of Brigadier General in November, 1940. He is a talented speaker and will answer many of the current questions in regard to the part that the medical profession will play in this war.

Enrollment Form
for
Procurement and Assignment
Service
Page Thirty-eight.

The Secretaries' Conference

FOURTH FLOOR, INDIANAPOLIS ATHLETIC CLUB, INDIANAPOLIS
SUNDAY, JANUARY 25, 1942

PROGRAM

1:00 p.m.—Call to order and opening remarks by R. L. Hane, M.D., Fort Wayne, chairman.

1:05 p.m.—Welcome to secretaries by C. H. McCaskey, M.D., Indianapolis, president-elect, Indiana State Medical Association.

1:15 p.m.—"*What Is Expected of Physicians in the Plans for Civilian Defense*," CLARENCE A. JACKSON, Indianapolis, chairman and civilian defense director, Indiana Defense Council.

1:35 p.m.—Questions relative to civilian defense.

1:45 p.m.—"*Methods in Securing an Enabling Act for Prepaid Medical Care*," JONATHAN FORMAN, M.D., Columbus, Ohio, editor, *The Ohio State Medical Journal*.

2:05 p.m.—Discussion: CHARLES S. NELSON, Columbus, Ohio, executive secretary, The Ohio State Medical Association.

ALBERT STUMP, Indianapolis, attorney for the Indiana State Medical Association.

2:20 p.m.—"*Future Needs of the United States Army as to Physicians*," MAJOR SAMUEL FOSTER SEELEY, M.C., Washington, D.C., executive secretary, Procurement and Assignment Service for Physicians, Dentists and Veterinarians.

2:40 p.m.—Discussion led by CHARLES R. BIRD, M.D., Indianapolis, chairman, M-Day and Veterans' Affairs Committee, Indiana State Medical Association.

2:50 p.m.—Intermission.

3:00 p.m.—"*Social Security Medical Problems*," CHARLES H. PHIFER, M.D., Chicago, president, Illinois State Medical Society.

3:30 p.m.—Discussion: VIRGIL SHEPPARD, Indianapolis, director, Division of Public Assistance, Indiana State Department of Public Welfare.

J. S. LEFFEL, M.D., Connersville, chairman, Medical Relief Committee, Indiana State Medical Association.

3:50 p.m.—Quiz program.

Written questions to be submitted for discussion by officers of the Indiana State Medical Association.

4:45 p.m.—Election of chairman for 1942.

5:45 p.m.—Dinner.

Introduction of speaker by M. A. Austin, M.D., Anderson, president, Indiana State Medical Association.

Speaker: GENERAL LEWIS B. HERSHEY, director, Selective Service System, Washington, D.C.

Subject: "*Procurement and Assignment of Physicians for Defense*."

All members of the Indiana State Medical Association are invited to attend. Dinner will be free to the county medical society presidents and secretaries. For others, the charge will be $1.50 per plate.

President's Page

SALUTATORY

One hesitates to compliment anything Germanic nowadays, but many of its professional men have had two enviable characteristics. Their thoroughness and devotion to their work nearly always have been associated with a cultural diversion that included languages other than their own; the world's best literature and music have been as much a part of their education as their scientific studies. A recent article concerning doctors' hobbies and diversions listed a WHO'S WHO of medical men who were as great musicians as they were surgeons, pathologists and other medical specialists. Two sons of German-born parents were close friends of mine in the gay nineties at Rush Medical, and both were brilliant musicians, one a pianist and the other a cellist. It is a tragedy with us AMERICANS that the treadmill of economics has forced so many otherwise good men to see nothing but the dollar sign ahead of them. They think they play golf for the exercise, but more often it is to get acquainted with the Country Club crowd. Bridge is hardly regarded as a diversion, without booze and a budget. Reading with understanding is a lost art, and musical standards are measured by jazz and swing. I should like to have read Balzac and DuMaupassant in the original, as well as Goethe and Schiller. An experience I had at Camp Custer in 1918 has been outstanding in my memory all through the years since then. I was in the "Y" after supper one evening. Only two or three others were in the room when a big fellow in his late thirties came in and sauntered over to a table. He picked up a magazine or two but threw them down with an "Oh, Hell" attitude. Then he drifted over to the corner of the room where there was a piano. Slumping over its top he jammed at the keys with one finger as if he desired an axe to express himself more forcibly. He stood there several minutes, just striking single unconnected notes, before he slid down on the stool and looked vacantly at the keyboard. Then he put his right hand on the keys, and his fingers brought forth a few notes from "Liebestraum." His left hand then rippled a cadenza as if he were not unacquainted with the moods of other music masters. Then he sat in silence for a few moments before he reached out both hands, and his fingers touched the keys with an expression of love and tenderness, as if his fingers and the keyboard were bridging the gap between reality and that which would have assuaged his loneliness. For the next half hour he was unaware of any audience, and from the keyboard came the most wonderful harmonies and improvisations I have ever heard. Some themes I recognized, but most of them were expressions of himself.

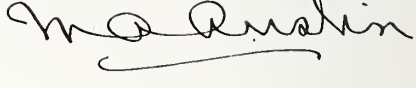
Dryden has said:

"Happy the man, and happy he alone,
He, who can call today his own;
He who secure within, can say,
Tomorrow do thy worst, for I have lived today."

And doctors who have not cultivated a love for good music, good literature and worthwhile poetry, nor found time to appreciate the wonders of the earth, the seas and the sky, have never really lived, regardless of how successful they may have been in their profession.

In a recent book on Mexico, I came across a few lines which express all that I could wish to say about my responsibilities for the coming year. It is one of the few fragments that escaped the destruction of the Aztec Library when the Franciscan Bishop Zumaragga destroyed the city of Texcoco in 1530. It was the prayer of a chieftain when he was elected to that high office.

"Grant me Lord, a little light,
Be it no more than a glow worm giveth.
Let it guide me through this life
When I go forth, both day and night.
This dream, like all, lasts but a day,
Raise me if I stumble on the way.
Let me see things at which to laugh,
As I seek to find the path
Along which all are groping."



Assignment and Procurement of Indiana Physicians

Indiana physicians who desire to volunteer for active service in the Army and Navy will receive this opportunity immediately, according to steps taken by the Procurement and Assignment Service at a meeting held at the American Medical Association headquarters on December eighteenth. Those who wish to volunteer are asked to fill out the application blank which appeared in the December twenty-seventh issue of *The Journal of the American Medical Association.*

As a result of this meeting on December eighteenth, it was determined that needs for physicians fall into two classes:

First—An immediate need for physicians for active duty in the Army and Navy. This need has been greatly increased since December seventh, "Jap" Sunday, and the subsequent declaration of war. Indiana's share for the immediate need would be about sixty physicians, according to estimate.

Second—Need for medical personnel to serve as the Army, Navy, Marine Corps are expanded. A program of expansion is being planned for as rapidly as possible. The program will be carried out by the Procurement and Assignment Service under the direction of the Procurement and Assignment Board, headed by Doctor Frank Lahey, president of the American Medical Association, through Army Corps headquarters, State, District and County medical societies. For details in regard to future development of the program, keep in touch with the American Medical Association and State Journals.

Doctor Fred Rankin, medical director of the Fifth Corps Area, announced that Doctor Larue Carter, of Indianapolis, will serve as Indiana representative on the Fifth Corps Area Medical Advisory Board. Doctor Charles R. Bird will serve as director for the State Association. This work in Indiana will be carried out under the direction of the Council.

The following men from Indiana attended the meeting: A. M. Mitchell, Terre Haute, president; M. A. Austin, Anderson, president-elect 1941; C. H. McCaskey, Indianapolis, president-elect 1942; C. R. Bird, Indianapolis, chairman of M-Day Committee; Alfred Ellison, South Bend, councilor Thirteenth District, representing the Council; James M. White, Gary, councilor Tenth District; Captain Glen W. Lee, medical director, Indiana Selective Service, and Thomas A. Hendricks, executive secretary of the Indiana State Medical Assotion.

A large part of the programs will be devoted to the subject of assignment and procurement at the mid-winter meetings of the Council on January twelfth, and at the Annual Conference of the County Medical Society Secretaries on January twenty-fifth.

Following is the blank that those desiring to volunteer are asked to fill out:

ANSWER THE CALL

CONFIDENTIALLY

I KNOW
THAT MANY DOCTORS
WILL HAVE TO BE PROCURED
TO SUPPLY THE MEDICAL NEEDS
OF THE UNITED STATES ARMY AND NAVY
SINCE THE TALKING-EMERGENCY HAS ACTION.

PERSONALLY

I THINK
EVERY ONE OF THE
FORTY THOUSAND PHYSICIANS
UNDER THE AGE OF FORTY, SHOULD VOLUNTEER
AND BE CALLED FOR ACTIVE SERVICE IN THREE AGE GROUPS:
THOSE UNDER THIRTY, THOSE UNDER THIRTY-FIVE, AND THOSE UNDER FORTY.

REGRETFULLY

I LEARN
THAT IN THIS WAR
AS IN OTHER PREVIOUS WARS
TOO MANY GOOD PHYSICIANS NOW IN SERVICE
ARE DISSATISFIED BECAUSE THEY HAVE TO DO
LITTLE OR NOTHING THEY HAVE BEEN TRAINED TO DO.

HUMILIATING

I KNOW
IT WILL BE LATER
TO ANY YOUNG DOCTOR
WHO MAKES HIS OWN AFFAIRS
PARAMOUNT IN THIS MOST SERIOUS CRISIS.
WE DID OUR PART IN 1918, AND WE WLL DO IT AGAIN IN 1942
WITHOUT BEING DRAFTED.

M. A. AUSTIN, M.D., President,
Indiana State Medical Association.

ENROLLMENT FORM FOR PROCUREMENT AND ASSIGNMENT SERVICE FOR PHYSICIANS

Dr. Sam F. Seeley, Executive Officer
Procurement and Assignment Service
New Social Security Building
4th and C Streets, S. W.
Washington, D. C.

Dear Doctor Seeley:

Please enroll my name as a physician ready to give service in the Army or Navy of the United States when needed in the enrrent emergency. I will apply to the Corps Area commander in my area when notified by your office of the desirability of such application.

Signed_____

1. Give your name in full, including your full middle name;
2. The date of your birth;
3. The place of your birth;
4. Are you married or single?
5. Have yon any children; if so, how many?
6. Do you believe yourself to be physically fit and able to meet the physical standards for the Army and Navy Medical Corps?
7. Have you filled out previously the questionnaire sent to all physicians by the Ameriean Medical Association?
8. When and where were you graduated in medicine?
9. In what state are yon licensed to practice?
10. Do you now hold any position which might be considered essential to the maintenance of the civilian medical needs of your community; if so, state these appointments:

11. Have you previously applied for entry into the Army or Navy Medical Service; if so, state when, where and with what result (if rejected, state why).

Signature_____

Date_____

Address_____

ABSTRACT

NATION'S PHYSICIANS ARE READY TO MEET ANY DEMANDS ON THEM

"The President of the United States will find the physicians of this nation ready and willing to meet any demands which the nation may place on them," *The Journal of the American Medical Association* pledges in the leading editorial in its December 13 issue. In the same issue is published "A Call to Service" by Frank H. Lahey, M.D., Boston, President of the Association, and statements by James C. Magee, Surgeon General of the Army; Ross T. McIntire, Surgeon General of the Navy, and Paul V. McNutt, Director of the Office of Defense, Health and Welfare Services, expressing their confidence in the ability of the medical profession to meet the demands made on it by the war.

In its editorial, "The Nation at War," *The Journal* says:

"On December 7 the Japanese attacked the United States. On December 8 the President declared a state of war between Japan and the United States; both the Congress and the Senate of the United States adopted resolutions supporting the action of the President. The mustering of the forces of the United States to meet this attack and to carry on warfare to absolute victory places an immediate and tremendous responsibility on the medical profession. By the time this editorial appears, the Selective Service will, no doubt, have intensified its activities to call an additional half million, if not a million, men. For every thousand men called into service, at least six physicians are required.

"Fortunately the medical profession has been alert. Since June, 1940, the medical profession has been intensively engaged in standardization of military medical procedures, encouragement and promotion of scientific military medical research and enrollment of medical personnel. Already more than twenty-five thousand physicians have given of their services to the Selective Service. Already more than ten thousand physicians are engaged in military medical service. Additional thousands are associated with the United States Army and Navy Medical Corps, the United States Public Health Service, speeded industry and many other military and quasimilitary activities. Moreover, the Office of Civilian Defense has made the medical profession aware of requirements for its services to the civilian population in times of emergency.

"Whenever the medical profession has been called on by our government it has responded whole-heartedly and enthusiastically to the Nation's call. Never has there been raised the slightest doubt of the patriotism of the medical profession. Now comes a new opportunity to respond.

"The development of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians places on the medical profession the responsibility for supplying the medical personnel necessary to all the services that have been mentioned. The utilization of the roster in the headquarters of the American Medical Association gives opportunity to supply all the needed officers and, at the same time, to protect the requirements of medical education and the care of the civilian population.

"On December 18 the Committee on Medical Preparedness of the American Medical Association will meet in Chicago together with similar committees representing the dental and veterinarian professions to outline the details of the method by which physicians will be called. The state and county committees on medical preparedness will be utilized in developing complete information regarding physicians available for various types of service. Shortly also *The Journal* will publish a blank on which every physician willing to serve may indicate the special service for which he is immediately available.

"The organization has been made ready; the lines of communication are drawn; confusion need not prevail. When the call comes, physicians who are to serve with the military branches will enroll directly through the corps area commander in each corps area and all of the necessary steps will have been taken to facilitate such enrollment. The President of the United States will find the physicians of this nation ready and willing to meet any demands which the nation may place on them."

In Dr. Lahey's call to service he says:

"The establishment by the government of a Procurement and Assignment Agency properly places the responsibility for obtaining medical personnel in the hands of the medical profession. The success of this agency depends entirely on a few basic features: the complete cooperation of medicine in what even the most doubting must now admit is a truly national emergency; an unqualified willingness to serve the country however, wherever and whenever required; and a firm purpose to establish the fact that medicine intends to maintain its place in the forefront as it always has when a patriotic example is of such significance."

Departing for the first time from its custom of not publishing articles on its cover page, *The Journal* in its December 13 issue presents on its title page statements by General Magee, Mr. McNutt and Admiral McIntire, addressed "To the Medical Profession of the United States."

General Magee says: "The present very cooperative and effective relationship between the Army Medical Department and those great bodies representative of the civil medical profession give assurance that during the present emergency medicomilitary affairs will be administered with the greatest possible degree of efficiency to the Army and to the civil population of our country."

Mr. McNutt says: "The mobilization and utilization of the medical profession has been placed in the hands of the profession itself through the establishment of the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians. I am sure we may rely, as always in the past, on the patriotism of the American medical profession."

Admiral McIntire says: "The Medical Department of the Navy expresses its deep appreciation to the medical profession of our country. Now that war is actually upon us, the Navy will need more medical officers. It has no fear regarding its needs being met; the past has shown whole-hearted cooperation. This war must come to a successful conclusion. I am convinced that the medical profession will do its part to bring that about."

DEFENSE AND WELFARE DAY*

CHARLES R. BIRD, M.D.
Colonel Medical Reserve, United States Army
Chairman, M-Day Committee
Indiana State Medical Association
INDIANAPOLIS

The nation is engaged in a gigantic defense program. As we build planes and tanks by the thousands and train personnel to man them, we must at the same time broaden our perspective to include the health and welfare of us all; we must revitalize our philosophy; we must strengthen our faith if we are to defend the thing we have faith in, as we make our Democracy a living, burning reality in our political and economic world and continue it as a government of the people.

Knowledge of the seriousness of the national situation and the awareness of the threat to Democratic freedoms bring a consciousness of how vital their loss would be and crystallize a determination to defend them.

The philosophy of democratic ideals reduces the responsibility to individuals and individual groups, co-ordinated with the aid of national and state agencies, constituting a united front.

The extent to which local communities can assist in solving the human problems arising from the stresses and strains of the defense program is the measure of the capacity of a democracy to work in a crisis.

Powerful military defense must be based upon a strong and secure people. Total defense is predicated upon a whole social fabric, with a strong background in the basic fundamentals of good health, both mental and physical, into which enter proper nutrition, decent housing, adequate clothing, and ample recreational facilities.

Health problems and welfare problems go hand-in-hand. They create weak spots in our social fabric which tend to give way under stress and undermine our civic and economic existence.

We cannot afford to advance the defense program at the expense of further progress in, or curtailment of, social gains. Defense is not a substitute for a working democracy at home; the defense program must be dovetailed with the further solution of social problems.

Vocational training measures, the promotion of health, the prevention of disease, and the correction of physical defects, were given added impetus by the last war when it was found the nation needed these services for national strength. This was made apparent when we mobilized our man power in 1917-1918. Although some progress has been made, we again are reminded of flagrant deficiencies by the rejection so far of more than 1,000,000 men in our present training process—rejected not only by reason of physical defect, but also because of lack of educational qualification, and because of emotional instability.

In the retreat from Dunkerque, we saw a striking example of how impotent were the *spirit* and *will* of the British in the face of physical unfitness. German physical prowess had been built as a part of a great war machine. The same physical fitness should be *our* aim, but for a different purpose.

What *ARE* our health and welfare problems? And *HOW* have they been intensified and enlarged by the present emergency?

In many communities in Indiana, and elsewhere, where vital defense work is being carried on there is no adequate water supply, no sewage disposal, no available pasteurized milk supply, and garbage is disposed of according to the whim of the individual.

In our attempt to change at top speed from an economy of partial recovery to an economy of boom production, we have set in motion great migrations of people and a redistribution of population. This creates local emergencies. School facilities must be provided to meet the educational needs of the children brought in by the influx of a new population. Serious housing shortages are extreme emergencies in many communities, and it is apparent everywhere as we note the tremendous impetus in new building construction.

The transition to a defense economy requires the diversion of essential materials from non-defense to defense production, resulting in hardships to non-defense businesses and displacement of thousands of workers employed in such concerns.

Serious consideration must be given as to what shall become a permanent need. Boom towns have sprung up before in our history and have reached a magnitude of considerable proportions, but are now identified by grass in the streets and useless smokestacks.

The health and welfare problems arising out of the defense emergency will be met, for the American people have always met such apparent conditions.

As we mobilize each individual in each local community for whatever contingency the future may entail, let it be with the conviction that health and nutritional needs, recreation and education, are welfare factors as necessary in the defense of democracy as is the output of factories and arsenals.

A grave national weakness was brought to our

* Radio address presented November 14, 1941—National Defense Week.



The Underprivileged Seldom Smile

attention when the Department of Agriculture told us that forty-five per cent of our citizens are undernourished. Physical defects and malnutrition strike not only at our potential armed strength, but also at the population as a whole.

In economic stresses the child is most affected, for he is in his formative period. The child of today is the America of tomorrow.

Every city has tenement districts where houses are inhabited by four, six or eight families, each family with two, four, six, or more children, living in two or three rooms, and this is where crime originates, where disease develops, and where malnutrition stalks day in and day out. There are no facilities for keeping clean, and no child can long be self-respecting when he is dirty; we can't expect much of him when he is hungry; his resistance is lowered by cold in winter, and his morale is nil when he has only a dirty alley wherein to play.

These less apparent but ever-present health and welfare problems have been ignored by the general public and by us as individuals and have been left as the responsibility of official groups or individual workers. We boast ourselves as being the richest nation in the world, and yet we have allowed groups of children to develop who are classified as constitutional deficients—so classified because such a child is physically, mentally, socially and emotionally done for when he is born. This is the challenge and it cannot be met by medical attention, by dollars contributed to welfare agencies, nor by regimentation of relief. It must be met to a large extent by education—education of the general public as to its responsibilities; education of the child; but beyond this, the education of the parent in recognizing that the problem exists and that he has a part in solving it. This education of the parent is of greatest importance, for as the parent he is responsible for his child. He must be educated as to the importance of utilizing the means available to him in meeting the nutritional needs of his child; he must be made to understand that he is responsible for the child's physical well-being, for his social and spiritual life, and, through parental relations in the home, for the child's emotional stability. One other thing not to be overlooked is that all efforts should be directed to the end that initiative shall be developed in the parent, which will reflect itself in the independence of the child. All the factors which influence this problem must be dovetailed with one another so that progress will consist of integrated effort. The child is encouraged to learn to walk, which he accomplishes little by little—sitting upright, standing, and finally arriving at independent locomotion. This is basic to future usefulness. Relief measures calculated to inculcate the hope of eventually arriving at self-dependence and self-respect are the best measures. Helping a man to help himself does not resolve itself into charity, whether applied to an individual or to groups. This is constructive and opposed to the idea of laziness of mind, muscle and spirit.

The solution of health and welfare problems entails the simultaneous attack on many fronts—physical, psychological, sociological, and economic. It is time not only to broaden but to lengthen our perspective, so as to evolve a program which will encompass many years, as we contemplate the demands of today and anticipate the needs of tomorrow. In this fashion are health and morale built and is faith in one's self built. In proportion to the extent to which we build faith in ourselves do we extend our liberties.



Future America—The Potential Wage Earner

(Pictures submitted through the courtesy of the Indiana Department of Public Welfare.)

THE BEGINNING OF THE CENTRAL OFFICE OF THE INDIANA STATE MEDICAL ASSOCIATION

(Frederick E. Schortemeier, of Indianapolis, who was the first executive secretary of the Indiana State Medical Association, has prepared the following article on the opening of the central office of the Indiana State Medical Association. We regard this as important, so that we may have a record for historical purposes.—Editor's Note.)

I had the honor of serving as the first executive secretary of the Indiana State Medical Association. I am glad to comply with the request of Mr. Hendricks that I record the facts and events in connection with the establishment of the central office, so that some account shall be recorded. The happenings are not so very clear to me now and I must rely almost wholly upon recollections. Perhaps some of the members of the Association can augment and correct my statements, to the end that we may have a somewhat authentic account in the archives.

As I recollect, the members of The Indiana State Medical Association began to sense the need of a central office in about 1915. The establishment of a central office, with full time employes in charge, seemed to find favor with many associations about that time. My remembrance is that this matter was discussed seriously at the meeting of the House of Delegates in 1915, and a committee was authorized and appointed to select a full-time state executive secretary or business director and open a central state office. This director was not to be a physician, but rather a business man. The purpose of the office, among other things, was to be to (1) look after legislative matters at the Indiana General Assembly; (2) to arrange for proper legal protection in malpractice suits; (3) to send out public information to the newspapers regarding public health; (4) to build up and strengthen the county medical societies; and (5) to serve as a central clearing office for the members of the Association generally, etc.

I am not sure that I recall all of the members of the committee appointed by the House of Delegates to select the Executive Secretary and open the office. I recall meeting with certain members of the committee either late in 1915 or early in 1916. The first meeting was held at the Columbia Club in Indianapolis. My recollection is that Dr. Fred Tucker, of Noblesville, deceased, was the chairman of the committee. Dr. Albert E. Sterne, of Indianapolis, deceased, and Dr. E. M. Shanklin, of Hammond, were members. These gentlemen met with me and offered me the position of executive secretary. Dr. William N. Wishard, of Indianapolis, who was chairman of the Legislative Committee, and Dr. E. A. Bulson, of Fort Wayne, deceased, editor and publisher of THE JOURNAL of the Association, were freely consulted and, I think, met with us several times.

I was a young lawyer, just out of Harvard Law School, without any clients and I was greatly pleased to get the appointment. I had been a reporter on the Indianapolis *Star* for a number of years, and the committee thought that my newspaper experience would qualify me to prepare and disseminate public information regarding public health and the medical profession.

We opened the first office in the Hume Mansur Building in Indianapolis. I think Dr. Sterne went with me to select the furniture. He gave me valuable assistance during the first year. Dr. Tucker came frequently, but retired from the committee after a year or so, as I recall, and Dr. Shanklin took the chairmanship and was very active.

Dr. Wishard and I spent many hours together on legislation. With our offices in the same building, we had daily conferences during part of the year. He was a wise and sagacious adviser. He always emphasized the thought that the physicians were not entitled to any special consideration but that the interests of the public in having high standards for medical practice should be paramount. If the public demanded the maintenance of high standards, the physicians' problems would take care of themselves, he said.

I sent out weekly news releases to all the newspapers of the state, discussing some phase of public health and endeavoring to get the public to better understand the physician. This information, of course, was obtained from various members of the Association and written by me in newspaper language.

I worked in close contact with Mr Sheridan, who was the executive secretary of the Ohio State Medical Association. I remember making trips to Columbus, Ohio, to inspect his office and his organization. I remember that Ohio had the first central office of this kind in the country, and Indiana was the second state to have such an office.

One of our principal tasks was to get county medical societies organized in those counties in Indiana which had no county organizations, and to strengthen those county medical societies which were weak.

Dr. Bulson, editor of THE JOURNAL, was most cooperative and published all our material, but at that time maintained the publication of THE JOURNAL at his offices in Fort Wayne.

We gave considerable attention to malpractice cases. Primarily, however, our work consisted in looking after legislative interests and strengthening and building up the State Association and its membership. I made many trips throughout the state to meet with the county societies.

My services as executive secretary of the Indiana State Medical Association extended throughout 1916 to 1918. When I resigned I was succeeded by Elmer F. Raschig, now an editorial writer on the staff of The Indianapolis *Star*, and he was succeeded, as I am informed, by Thomas A. Hendricks, who continues in this capacity and under whose leadership

the central office has been greatly enlarged and improved and its sphere of usefulness greatly extended.

A quarter of a century has passed since the central office and the executive secretary were first seriously considered and installed. Much has happened between 1915, the year this project was adopted, and 1942. During this period of twenty-seven years, I feel sure that the central office has justified its existence and done much to promote public health, as well as the best interests and welfare of the members of The Indiana State Medical Association

This account may not be accurate in all its details; perhaps some of the older members of the Association can amend and improve it. I desire to compliment Mr. Hendricks upon his desire and intention to preserve and maintain a permanent historical record of the central office and the Association.

INDIANA'S HUMAN MILK STATION

ST. MARGARET'S HOSPITAL GUILD
INDIANAPOLIS

The St. Margaret's Guild Human Milk Station at the Indianapolis City Hospital is one station among thirteen throughout the United States which is busy supplying mother's milk for the needs of premature and sick infants. The Mother's Milk Bureau in New York was one of the earliest established Mother's Milk Stations. In 1921, the Children's Welfare Federation, a charitable organization of New York City, sponsored the station in collaboration with the New York Pediatric Society. During 1937, the St. Margaret's Guild, a charitable organization, sponsored a similar mother's milk station at the City Hospital in Indianapolis.

Mother's milk has long been exalted as the ideal food for all new infants. It is now known that mother's milk is a life-saver for the prematurely born infant—the tiny babies whose gastro-intestinal tracts have not developed so that they can tolerate many of the foreign substances used in milk preparation.

The main objective of this organization is to give every baby in Indiana who has need for mother's milk, which cannot be obtained from his own mother, an opportunity to obtain mother's milk.

The supply of milk for the Indianapolis station is obtained from mothers who have a surplus after they satisfy the needs of their own babies. These women must pass a rigid physical examination before they are permitted to come to the station. Following the physical examination, a sample of her milk is drawn for chemical analysis and bacterial count.

When the mother is placed on the accepted list, she comes to the City Hospital once a day to express her milk, under the supervision of a graduate nurse. She puts on a gown, head triangle, and face mask when she first enters the Station. Before expressing her milk, she scrubs her hands thoroughly, then her breasts are scrubbed. The milk is expressed into a sterile bottle which is immediately placed in an iced container. After all milk has been collected, it is taken to the Milk Laboratory of the Dietary Department of the City Hospital where it is pooled. The pooling of the milk gives a product which is fairly constant in chemical composition, although the protein, fat and carbohydrate content of the milk of individual mothers may vary considerably.

To preserve this milk and to have an ever available supply for doctors who have need of mother's milk for infants, the milk is fast-frozen with dry ice by the Borden Milk Company process. This frozen milk is shipped in sterile containers, packed in dry ice, to any point in the state. Shipment is made by bus, for it is usually the quickest and most direct mode of transportation. The frozen milk is converted into the liquid state by allowing it to stand in an ordinary refrigerator or at room temperature. Five frozen wafers is equivalent to one ounce when melted.

When mother's milk is needed, several days' or weeks' supply may be ordered at one time. The extra amount over the daily requirement can be conveniently stored in the local frozen food locker, or freezing unit, of electric refrigerator.

It is hoped that within a short time every infant in Indiana who needs mother's milk will be given this opportunity to obtain mother's milk.

Dues are payable on January 1 and become delinquent on February 1. Don't risk delinquency!

TWENTY-FIVE YEARS AGO

Association headquarters had been opened in Room 308, Hume-Mansur Building.

* * *

Dr. and Mrs. B. M. Edlavitch, Fort Wayne, were celebrating the arrival of a daughter.

* * *

E. O. Asher, New Augusta, was married to Miss Mabel Newton, San Francisco, December twenty-fifth.

* * *

Editor Bulson had removed his office from 219 West Wayne Street, to 406 West Berry Street, Fort Wayne.

* * *

Drs. W. H. and R. C. Martin, Kokomo, were spending the winter on their orange and grapefruit farm in Florida.

* * *

The Medico-Chirurgical College of Philadelphia had been merged with the Medical School of the University of Pennsylvania.

* * *

The Daviess County Medical Society had elected Dr. H. C. Wadsworth as its secretary. (For many years past he has served as Councilor from that district.)

* * *

There also was an editorial regarding the urgent needs of our medical school, the old building having been seriously damaged by a fire on December seventh.

* * *

Indiana's new Compensation Law, which had been quite disturbing to the medical profession, was thoroughly explained in an article by Howe S. Landers, secretary of the State Industrial Board.

* * *

At last an ingenious inventor had contrived a detachable auto top, a one-man affair, which readily could be set onto the little Fords so commonly used in those days.

* * *

It looked as if the state pharmacists were planning to introduce a bill in the legislature which would prohibit dispensing by physicians. This was the culmination of a rather protracted quarrel between a small group in eastern Indiana.

* * *

A man from Fort Branch, Gibson County, had presented himself at the Long Hospital, Indianapolis, where a diagnosis was made of leprosy. It was stated that this was the third leper to appear in Indiana during a period of thirty years.

* * *

The Kentucky State Medical Association had planned an innovation in their annual program, the entire program being given by their own members. (On more than one occasion Indiana tried this plan and our memory is that it worked out to the satisfaction of most everyone.)

* * *

Hugh Miller, of South Bend, had written on gastric disorders; Frank B. Wynn, of Indianapolis, outlined some important points in the diagnosis of pneumonia; Ray Beeler, of Indianapolis, talked about the x-ray diagnosis of pneumonia.

* * *

Because of war conditions many useful drugs were becoming scarce and it was found that useless, sometimes harmful, substitutes were being placed on the market. During 1916 Federal authorities had prosecuted 198 such cases.

* * *

The legal status of the American Medical Association, particularly pertaining to the right to hold its annual elections outside the state of Illinois, had finally been settled; the courts having decided — after a six-year controversy — that this was perfectly all right.

* * *

University of Wisconsin health authorities had discovered that the new type drinking fountains, after all, were not germ proof; that several cases of streptococcus throat infections had been directly traced to this source. Thus developed the idea of inclining the jet at an angle.

* * *

Editorially, Bulson spoke about human disease carriers and how to manage them, then he proceeded to discuss at length the efforts made to lower the standards of medical practice in Indiana through a drugless healing bill about to be introduced in the legislature.

* * *

Fred Schortemeier, the new executive secretary, presented a plea for better cooperation from the county medical society secretaries. It seems that twenty-two such officials had ignored every communication he had sent to them. The Editor also made some characteristic comments on this subject.

* * *

A Greensburg physician had received a letter, together with a check for an account in full, in which the writer expressed his deep appreciation for the ministrations of the man of healing, saying that he had received full value. He went on to say, "When I see those notices in the newspapers stating that, 'We, the family—Mother, Bill and Mary—thank the minister, the choir and the undertaker,' it makes me smile at the poor fools. Why in h— don't they thank the doctor who did all he could to relieve their suffering while they were alive?"

UNDER THE CAPITOL DOME

VOCATIONAL REHABILITATION OF THE PHYSICALLY HANDICAPPED

The Vocational Rehabilitation Division of the State Department of Public Instruction has placed 418 physically handicapped persons in profitable employment during the past year, according to Slater Bartlow, director of the Division. These physically handicapped individuals were placed after a period of training by the Rehabilitation Division. In some instances the rehabilitated individuals were provided with some needed artificial appliance, such as artificial legs, hearing devices, and other similar aids.

Effectiveness of the program was shown by the fact that during a recent ninety-day period the division placed fifty persons in jobs in defense industries. Mr. Bartlow said that Indiana employers have shown a willingness to cooperate in the rehabilitation program. In addition to the 418 persons trained and placed in permanent jobs, the division reported that approximately 700 others were given some training during the past year and were placed in part-time jobs.

A majority of the physically handicapped, Mr. Bartlow said, have received high school training before they have been given specialized training through the rehabilitation service. The rehabilitation program is financed jointly by the State and Federal governments. The physically handicapped are trained in some type of work in which the particular handicap of the individual either does not affect his efficiency or does so in a minimum amount. The handicapped are fitted for a wide variety of work, from office work to beauty operators and barbers, Mr. Bartlow reported.

A survey of Indiana, conducted as a W.P.A. project in conjunction with the Rehabilitation Division in the State Education Department, revealed a physically handicapped population of approximately twelve such persons per one thousand of Indiana's population. Other estimates, Mr. Bartlow said, run as high as fifteen handicapped individuals per one thousand of the population. The ratio for Indiana is probably somewhere between the twelve and fifteen per cent figures, he said.

The Rehabilitation Division is authorized to spend only a limited amount for artificial appliances, Mr. Bartlow said, and the ones that are purchased are bought in conjunction with or incidental to the training program adopted for the handicapped persons who are being trained for suitable work. Last year approximately $6,000 was spent for these appliances.

YOUTH LACKS MEDICAL ATTENTION

Forty-nine per cent of the young men and women employed in National Youth Administration projects had never received any medical attention or been examined by a doctor, according to a report of a study made of a sample group of NYA workers examined under the NYA health program. Thirty-two per cent of the NYA workers had received hospital care "for disturbances which could have been remedied with simpler treatment if discovered in time," the report said.

The largest number of difficulties involved dental deficiencies. Ninety-seven per cent of the group needed dental attention. More than half of them, sixty-nine per cent, had never had any dental work done. More than half, fifty-one per cent, needed glasses. Twenty-seven per cent required tonsillectomies, thirteen per cent had sinus infections, fifteen per cent were underweight, eight per cent had defective hearing, five per cent were suffering from some form of paralysis, two per cent were in need of hernia operations, and two per cent had venereal diseases.

Since the NYA health program was inaugurated last April second, more than 3,000 youth and supervisors have received health examinations by teams of local doctors selected with the assistance of state and county medical and dental associations. NYA officials said the purpose of the examinations is to make young people aware of the necessity of good health and to assist them in remedying difficulties. In every instance the NYA worker is called in for a discussion of the results of the examination and is advised to consult his family physician and dentist. Where there is none, he is referred to local clinics or local services.

Most industries today require a physical examination. The young people frequently are able to improve their physical condition while on NYA projects, thus being able to meet the requirement of good health when they are prepared for a job.

In connection with health activities in the Civilian Conservation Corps it has reported that enrollees have gained an average of 11.26 pounds per man, and that there was an average gain in height of .54 inches per man.

SCHOOL HEALTH COURSE DRAFTED

A tentative course of study in physical education for use in grades one to six of the Indiana schools has been completed and will soon be published for distribution to teachers. The course was drafted by a committee, of which Frank S. Stafford, assistant chief of the Bureau of Health and Physical Education in the Indiana State Board of Health, is chairman. Mr. Stafford did most of the actual writing of the book, which was a joint enterprise of the health and education departments.

Mr. Stafford explained that the course of study was written primarily for small schools and for class room teachers who have had no special training in physical education and health.

Members of the Course of Study Committee include Florence Curtis of the Indiana State Teachers College; Grace Woody of the Ball State Teachers College; Clara L. Hester of the Normal College

of Indiana University; Martha Schmadel of the Evansville schools; Karl W. Bookwalter of Indiana University; Lloyd L. Messersmith of DePauw University; Orlo W. Miller and Robert Yoho of the Bureau of Health and Physical Education.

PUBLIC AWAKE TO DANGER OF TULAREMIA

Public interest has at last been aroused regarding the danger and prevalence of tularemia. Newspapers and radio stations are now asking the State Board of Health for information which can be used in articles and broadcasts, calling attention to the disease and to preventive measures.

Thirty-five cases of the disease were reported to the Indiana State Board of Health in one week. One death occurred in October.

Miss Estelle Nesbitt, nutritionist in the Bureau of Maternal and Child Health of the Indiana State Board of Health, has written a series of five articles for the *Indiana Parent Teacher Magazine*. The general theme of the articles is "Food for the Family." The articles will deal with food selection (milk, fruits and vegetables, whole grain cereals) and menu planning. The first of the series will appear in the January issue.

Deaths

Isaac W. Davenport, M.D., of Sheridan, died on December fourth at the age of eighty-three. He was a graduate of the Medical College of Indiana, Indianapolis, in 1881.

Walter Wynn Barnett, M.D., of Fort Wayne, died at the age of eighty-four on December first. He was a graduate of the Fort Wayne College of Medicine, Fort Wayne, in 1886.

Clarence V. Ward, M.D., of Indianapolis, died November seventh at the age of sixty-seven. He was a graduate of the Kentucky School of Medicine, Louisville, in 1900.

Joseph Edwin Showalter, M.D., of Waterloo, died on December first at the age of seventy-eight. He was a graduate of the University of Wooster, Medical Department, Cleveland, in 1893. Dr. Showalter had retired from active practice.

Mavity J. Spencer, M.D., of Indianapolis, died November twenty-seventh, aged seventy years. He was a graduate of the Central College of Physicians and Surgeons, Indianapolis, in 1896. Dr. Spencer was a former superintendent of the Indianapolis City Hospital, and a former president of the City Board of Health. He was a member of the Indianapolis (Marion County) Medical Society, the Indiana State Medical Association, and the American Medical Association.

William R. Williams, M.D., of Greenville, aged eighty-four years, died on December first. He was a graduate of the University of Louisville School of Medicine, in 1881.

Samuel L. Carson, M.D., of Vincennes, died November tenth, aged seventy-two years. Doctor Carson was a graduate of the Hospital College of Medicine, Louisville, in 1898. He was a member of the Knox County Medical Society, the Indiana State Medical Association, and the American Medical Association.

James Lowry McBride, M.D., a resident of Zanesville, died on November twenty-ninth at the age of seventy-six. He was a graduate of the Medical College of Indiana, Indianapolis, in 1892. Dr. McBride was a member of the Wells County Medical Society and the Indiana State Medical Association. He was also a Fellow of the American Medical Association.

Richard Churchill Travis, M.D., of Indianapolis, died November twenty-third, aged forty-two. He was a graduate of the University of Michigan Medical School, Ann Arbor, in 1925. Dr. Travis specialized in urology. He was a member of the Indianapolis (Marion County) Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

News Notes

Dr. and Mrs. A. J. Kelsey, of Monterey, are spending the winter in Phoenix, Arizona.

Dr. Doris Hoffman, Vincennes, has opened an office at 21 North Sixth street.

Dr. J. C. Ambrose, formerly of Arcadia, is now located in Noblesville.

The Goshen Hospital reports the installation of a $4,000 x-ray unit donated by Mrs. John Egbert.

The Washington County chapter of the Red Cross has presented to the Washington County Medical Society an incubator for the care of premature infants. This incubator is available for any physician who desires to use it.

Dr. Edward J. Dierolf, resident physician at the James O. Parramore Hospital at Crown Point, and Miss Geneva M. Nelson, of Gary, were united in marriage at the First Presbyterian Church at Crown Point on November eighth.

Dr. Voris F. McFall, of Alexandria, is now associated with Dr. Kenneth Ayres, of Anderson, in the practice of surgery.

Dr. Harold J. Pierce, of Terre Haute, has been appointed by Governor Schricker to act as civilian defense director of Vigo County.

Dr. O. W. Johnson, of Michigan City, and Miss Dorothy Herbert, of Pottawattomie Park, were married November twentieth.

Dr. Milton E. Tomak, who has been stationed with the U. S. Army at Fort Benjamin Harrison, has resumed the practice of medicine at Linton.

Dr. H. J. Halleck, of Winamac, was recently appointed health commissioner for Pulaski County for a term of four years.

Dr. Charles M. Gibbs, of Greenfield, has been appointed by Governor Schricker to act as civilian defense director of Hancock County.

Dr. M. E. Miller, of Goshen, has been elected president of the Thirteenth Councilor District Medical Society.

Dr. Dillon Geiger, ear, nose and throat specialist, of Bloomington, has been elected to fellowship in the American Academy of Ophthalmology and Otolaryngology.

Under the will of the late Dr. George W. Hall, a prominent Chicago physician and surgeon, and a native of Montgomery County, Indiana, Wabash College was bequeathed $5,000.

Dr. Howard W. Beaver, of Rensselaer, and Miss Anna Louise Lorenz, of Indianapolis, were married at the home of the bride's parents on October nineteenth.

The new $275,000 Dunn Memorial Hospital at Bedford is now completely occupied, all the patients having been moved from the old building to the new.

Dr. Norman C. Henderson, eye, ear, nose, and throat specialist, formerly of Louisville, Kentucky, is now associated with Dr. E. R. Baldridge, of Terre Haute.

Dr. Howard A. Stellner has resigned from the Veterans' Administration at Knoxville, Iowa, to take the position of chief medical officer at the Indiana Reformatory at Pendleton.

The new Emhardt Memorial Hospital, at Indianapolis, held its opening on December twenty-fourth.

Lieut.-Col. J. C. Glackman, formerly of Rockport, and Mrs. Virginia Thompson, of Denver, Colorado, were married November eighth in Denver, where Lieut.-Col. Glackman is now stationed.

Dr. W. W. Duemling, and Dr. Ruth M. Hoetzer, Fort Wayne, have been awarded fellowships in the American School Health Association in recognition of leadership and efficiency in school health service.

Dr. Kenneth Smithburn and his wife are visiting the doctor's mother, Mrs. Augustus Smithburn, of Noblesville. Dr. Smithburn has been engaged for three years in research work for the Rockefeller Foundation in British East Africa.

The Indiana State Nutrition Council met at the Indiana State Board of Health building on November twenty-ninth. Dr. John W. Ferree, director of the State Board of Health and chairman of the Nutrition Council, appointed five sub-committees to organize a state-wide educational program and plan a state nutrition conference.

Dr. Norman Beatty, of Indianapolis, has been elected chairman of the Medical Advisory Committee of the Marion County Welfare Department. Doctors J. O. Ritchey, Herman G. Morgan, Charles W. Myers, of Indianapolis, were also appointed to serve on this Board.

Doctor Henry S. Leonard, of Indianapolis, has been appointed chairman of the Civilian Defense Committee of the Indiana State Medical Association, and as representative of the profession upon the Medical Advisory Council of the State Defense Council which has charge of all Civilian Defense in Indiana. This council will be made up of representatives from the medical, nursing, hospital, pharmaceutical and allied groups of the state. Doctor Leonard was formerly president of the Indianapolis Medical Society.

Word has been received from George Baehr, M.D., national medical director of the Civilian Defense Council, which reads as follows:

> "Office of Civilian Defense requests you urge all hospitals to establish immediately emergency medical field units in accordance with plans outlined in Medical Division Bulletins Nos. I and II, and to drill weekly. Where necessary, reserve field units should also be organized with medical, nursing and trained volunteer personnel derived from the community. Urge immediate action."

The duty of perfecting this organization in Indiana will fall to Doctor Henry S. Leonard and will be carried out through the local county medical societies.

15,000 NURSES NEEDED TO TEACH RED CROSS HOME NURSING

The American Red Cross is making an appeal for nurses to enroll as Red Cross Home Nursing instructors. Red Cross Home Nursing courses have been taught since 1914. During the past year 80,939 persons successfully completed courses taught by some 2,500 nurse-instructors. Because of the increasing demand, six times as many instructors will be needed in 1942.

Here is a far-reaching opportunity to make a valuable contribution to national defense. The nurse who volunteers her services as instructor is the vitalizing force which sets in motion this vast program of home preparedness. Nurses are urged to take advantage of this opportunity and get in touch immediately with their local Red Cross Chapter or Branch.

AMERICAN RED CROSS APPEALS FOR $50,000,000 WAR FUND

Calling for the united support of the entire nation, the American Red Cross has appealed for a special war fund of $50,000,000 to carry on and expand its work among Army and Navy personnel. The appeal was broadcast to the nation through major radio networks by Red Cross Chairman Norman H. Davis.

In preparation for just such an emergency as the country now faces the Red Cross has been spending funds at the rate of more than $1,000,000 a month. However, with war in the Pacific now a reality the traditional Red Cross responsibilities to the nation and its armed forces have increased manifold, and steps were taken immediately to meet these obligations, Chairman Davis said.

"Millions of Americans today desire to demonstrate their will to victory," the Chairman said. "Not all can be in the armed forces, not all can volunteer their services for humanitarian work, but all can volunteer their dollars to arm the Red Cross to be their representative at the scene of battle and distress.

"Today is the day to demonstrate our high morale, our unity, our determination to support our fighting men at the front, and to insure to the wounded and to our homeless and suffering fellow citizens in our Pacific Islands that we, as a nation, stand one hundred per cent ready to aid them through the Red Cross.

"Let the Red Cross be the spokesman for every community in America. Thus, what we do and what we give will be the triumphant expression of our humanitarian spirit and our faith in victory."

In its months of preparations the various services which the Red Cross provides to the nation and its Army and Navy have been effectively strengthened, but under the new conditions activities all along the line, on the war front and on the home front, must be rapidly expanded. By tradition, custom and Congressional Charter the Red Cross is the organization that maintains those human and family links between our fighting men and the people at home, links which mean so much to both military and civilian morale. Through its ministrations to the men on whose shoulders the safety of our country now rests, the Red Cross must prove that they have the wholehearted support of every single American, it was stated. The people, united as always in an hour of peril, will pour from their hearts the means which their Red Cross needs to carry on its work.

In announcing the war fund campaign, Red Cross officials pointed out that contributions would be used only in connection with the organization's war work. Membership dues collected during the November nation-wide Roll Call are needed to finance the normal, day-to-day services of the Red Cross in thousands of communities throughout the country.

UNITED STATES CIVIL SERVICE EXAMINATIONS

NURSES NEEDED FOR ST. ELIZABETH'S HOSPITAL

The Federal Civil Service Commission has announced an examination for the position of assistant chief nurse for St. Elizabeth's Hospital, Washington, D.C. The salary is $2,000 a year.

St. Elizabeth's Hospital provides treatment for mentally ill members of the United States Military Service and for certain civilians. The duties of assistant chief nurse include the instruction and discipline of staff and student nurses and attendants. They will also serve as instructors in nursing arts, including psychiatry, in the school of nursing. Applicants must have a bachelor's or master's degree, with major study in advanced nursing education, from a college or university of recognized standing.

Applications must be on file with the U. S. Civil Service Commission, Washington, D.C., not later than December 30, 1941. Announcements and application forms may be obtained at any first- or second-class post office, or from the Commission's Washington office.

MEDICAL GUARD-ATTENDANT, $1,620 A YEAR
MEDICAL TECHNICAL ASSISTANT, $2,000 A YEAR

U. S. PUBLIC HEALTH SERVICE,
MENTAL HYGIENE DIVISION, FEDERAL SECURITY AGENCY

Optional Branches (Medical Technical Assistant)

1. Clinical Laboratory Technique
2. Pharmacy
3. X-ray Laboratory Technique

Applications will be rated as soon as practicable after receipt at the United States Civil Service Commission, Washington, D. C.

Applicants must have had at least three years of active service in the Medical Corps of the Army or the Navy, with duties essentially medical in character, within the ten years immediately preceding the date of receipt of application.

HEALTH EDUCATION CONSULTANT, $3,800 A YEAR

U. S. PUBLIC HEALTH SERVICE, FEDERAL SECURITY AGENCY

Applications must be on file with the United States Civil Service Commission at Washington D. C., not later than January 12, 1942.

INDIANA UNIVERSITY NEWS NOTES

Approval of a special grant to finance a physiotherapist at the James Whitcomb Riley Hospital, a division of the Indiana University Medical Center, for a period of training in the widely acclaimed Sister Kenny Clinic at Rochester, Minnesota, has been announced by the Allocation Committee of the Indianapolis Chapter of the National Foundation for Infantile Paralysis. Responding to a request from the James Whitcomb Riley Memorial Association, financial sponsor of the hospital, the committee which last spring allotted $2,500 to the institution agreed to an additional appropriation.

Sister Kenny's revolutionary treatment of infantile paralysis, developed over a period of thirty years, recently won the editorial endorsement of the American Medical Association and has been widely publicized in other journals. The treatment consists of massage and exercise of paralyzed muscles. The National Foundation for Infantile Paralysis awarded her a grant last summer to establish the clinic at the University of Minnesota Medical School. She is training a number of technicians from widely scattered sections of the country.

Prior to requesting the grant from the local committee, Mrs. Winifred Kahmann, director of the Riley physiotherapy department, investigated the work done by Sister Kenny. She reported to the Riley Memorial Association that she believed it would be worth while to train other technicians. Announcement of the grant was made preliminary to the opening of the local campaign of the National Foundation.

Dean W. D. Gatch, of the Indiana University School of Medicine, was elected president of the Western Surgical Association at a meeting of the organization in St. Paul, Minnesota.

Other officers elected were Dr. E. M. Jones of St. Paul, first vice-president; Dr. E. Eric Larson of Los Angeles, California, second vice-president; Dr. Arthur R. Metz of Chicago, secretary; Dr. Verne Hunt of Los Angeles, treasurer, and Dr. Harry B. Zimmerman of St. Paul, recorder.

The 1942 meeting will be held at Memphis, Tennessee, next December.

The removal of the Indiana State Board of Health to its new building on the Indiana University Medical Center campus two years ago has proved highly beneficial to the Hoosier civilian and military defense program, according to Dr. Howard B. Mettel. Dr. Mettel, who is director of the Bureau of Maternal Health, said that close co-ordination with teachers and specialists of the medical center has helped to widen the scope of the department's activities throughout the state and has strengthened the merit system placed in effect last February. Dr. Mettel pointed out that it is the second state department in the nation to share the campus of the state medical school, the other being the Minnesota Bureau of Health.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION EXECUTIVE COMMITTEE

December 14, 1941.

Roll call showed the following present: C. A. Nafe, M.D., chairman; E. O. Asher, M.D.; A. M. Mitchell, M.D.; M. A. Austin, M.D.; C. H. McCaskey, M.D.; A. F. Weyeracher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: J. W. Ferree, M.D., secretary, State Board of Health; C. R. Bird, M.D., Chairman, M-Day and Veterans Affairs Committee.

Minutes of the meeting of November 9, 1941, approved upon the motion of Dr. Mitchell, seconded by Dr. McCaskey.

The statements of receipts and expenditures for November for the association committees and THE JOURNAL were approved.

Membership Report

Number of members Dec. 13, 1941....3,219 (110 hon. members)
Number of members Dec. 13, 1940....3,182(162 in service)
Gain over last year..... 37
Number of members Dec. 31, 1940....3,192 (90 hon. members)

Treasurer's Office

Purchase of defense bonds. The treasurer is to make his recommendation upon the number of bonds that should be purchased after the books are closed for 1941.

1941 Annual Session at Indianapolis

The committee approved the payment of $7.00 for the inscription on the gavel made from wood of the state constitutional elm and presented by Dr. W. E. Amy at the annual session.

1942 Annual Session at French Lick

Dates set—Tuesday, Wednesday and Thursday, September 29, 30 and October 1, 1942.

Annual health officers' meeting to be held at French Lick on Monday, September 28, 1942. This date officially set by Dr. J. W. Ferree, secretary of the State Board of Health.

Commercial exhibit announcements sent out.

Legislative, Legal and Social Security Matters

National

American Medical Association Legislative Bulletin No. 11 sent to members of the Executive Committee.

UNIVERSITY OF MARYLAD LIBRARY SCHOOL OF MEDICINE

Organization Matters

Desire of Jasper-Newton county physicians to affiliate unofficially with the Iroquois County Medical Society of Illinois, which was expressed in a letter from Dr. N. K. Forster, brought to the attention of the committee. It was the opinion of the committee that so long as the members of the Jasper-Newton County Medical Society maintain an official membership in their own local county medical society and hence in the Indiana State Medical Association, whatever they may choose to do in regard to meeting with the Illinois county medical society is satisfactory with the Executive Committee.

State Board of Health

The committee was informed that Dr. Herman Baker of Evansville and Dr. H. C. Metcalf of Connersville had been appointed members of the State Board of Health.

Medical Economics

Report made that a county medical society bulletin had been sent out in regard to the disposal of the medical material in the Indiana University Extension Division Package Library. The American Medical Association has been notified that this material is available.

Display of fee schedules in doctors' offices. Albert Stump, attorney for the association, gave the following opinion in regard to this question:

> "We have not been able to find any legal reason why a copy of a fee schedule should not be displayed in the offices of physicians, with the schedule signed either by the physician himself, or by a number of physicians, or merely showing that it was approved by the county medical society. There are statutes regarding combinations in restraint of trade, but all those statutes refer only to the handling of merchandise. They have never been construed as applying to professional services. There have been schedules of the kind referred to in your letter gotten out by bar associations showing a recommended or approved minimum scale of fees for services of attorneys. We believe that the matter of fixing minimum fees for physicians rests upon exactly the same principles.
>
> "While your letter refers to both legal and ethical reasons as to whether such a fee schedule should be displayed, we do not feel entirely competent to pass upon any ethical questions, although we do not see how there is any conceivable method by which the use of such a fee schedule could be found to be unethical."

Taxes on state medical society dues and taxes on stipends paid county medical society secretaries. The American Medical Association reports that there is nothing in the new law which would change the present situation in regard to this subject.

Advertisement in regard to the Physicial Medicine Instrument Company that appeared in the Indianapolis Medical Society Bulletin concerning "plasmatic therapy" brought to the attention of the committee. The committee suggested that a request for information in regard to this company should be made of the Bureau of Investigation of the American Medical Association, and also that a request be made that the Indianapolis Medical Society make an investigation and report upon this company.

Medical Relief

WPA report for November brought to the attention of the commitee.

Report made to the committee of the talk of Dr. John Leffel, chairman of the Medical Relief Committee of the Indiana State Medical Association, before the Township Trustees Association meeting. Dr. Leffel is speaking before many county and district medical society meetings in regard to this subject.

The committee discussed various letters that had been received by Dr. Leffel from physicians of Indiana in regard to the medical program that is to be started in this state January 1 for recipients of government aid.

State Land Use Planning Committees

Material received from the Kansas Medical Society in regard to the Kansas State Land Use Planning Committee has been placed in the hands of Dr. Nafe and he is to make a report at the next meeting of the Executive Committee.

Military Preparedness

Procurement and Assignment of Physicians. Dr. Charles R. Bird attended the meeting of the Executive Committee. Dr. Bird, Dr. Mitchell, Dr. Austin, Dr. Romberger and Mr. Hendricks assigned to attend meeting at Chicago on December 18 upon behalf of the State Association. Request to be made of the American Medical Association that other officers and councilors be invited to attend this meeting. If approval can be received, telegrams are then to be sent inviting them to attend this meeting. This activity will be carried on in Indiana under the direction of the Council.

Civilian defense. Dr. Henry S. Leonard of Indianapolis was appointed chairman of the Civilian Defense Committee of the Indiana State Medical Association and he is to represent the medical profession of the state upon the Advisory Medical Council of the Indiana State Defense Council which is in charge of civilian defense in Indiana.

Dr. John Ferree explained the program here in Indiana. It is understood by the Executive Committee that the Civilian Defense Committee is to be entirely separated from the work of the M-Day Committee.

Bulletins sent out by the headquarters office in regard to medical preparations in connection with civilian defense brought to the attention of the committee, along with a similar bulletin from the Ohio State Medical Association.

Future Meetings

Midwinter Council meeting to be held January 11, 1942, at the Columbia Club, Indianapolis. Dr. Olin West, secretary of the American Medical Association, has accepted an invitation to attend this meeting.

Annual Secretaries' Conference, January 25, 1942, to be held at the Indianapolis Athletic Club. Tentative program approved by committee.

American Medical Association meeting at Atlantic City, June 8 to 12, 1942.

Group Hospitalization and Medical Service Plans

No report as yet from the Indiana Hospital Association in regard to the acceptance of the Michigan Hospital Service plan by that organization. It is understood, however, that the Hospital Association has had a meeting to consider this plan.

Wayne County Medical Society questionnaire in regard to the Michigan Medical Service plan turned over to Dr. M. A. Austin, who had written a criticism of this plan when announcement of plan was made several years ago, foretelling objections on the part of the profession.

There being no further business, the meeting was adjourned.

BUREAU OF PUBLICITY

August 1, 1941.

Present: H. G. Hamer, M.D., chairman; F. M. Gastineau, M.D.; F. W. Taylor, M.D., and T. A. Hendricks, executive secretary.

The Bureau approved the annual report prepared for publication in the September (convention) issue of THE JOURNAL of the Indiana State Medical Association.

The Bureau suggested that a series of releases upon "Poliomyelitis" be prepared for distribution to the newspapers of Indiana, and that the articles which appeared in the July 26, 1941, issue of THE JOURNAL of the American Medical Association and the brochure on "Poliomyelitis," prepared by the Division of Services for Crippled Children of the State Department of Public Welfare, be used as a basis for these releases. One of the members of the Bureau is to contact one of the pediatricians in regard to summarizing these articles. Suggestion also was made that several articles be prepared upon "Venereal Disease and the National Emergency."

The League of Women Voters' survey upon "Federal Responsibility for Public Health and Health Insurance" was discussed by the members of the Bureau. Correspondence concerning additional material to be used by the League and by the members of the Woman's Auxiliary, giving the medical profession's viewpoint on health insurance, was brought to the attention of the Bureau.

Request received from the Michigan State Medical Society for copies of the news release and the editorial which appeared in THE JOURNAL of the Indiana State Medical Association concerning Selective Service examinations was brought to the attention of the Bureau. The Bureau moved that this request be fulfilled.

The following letter was received from the Woman's Auxiliary:

> "At the business meeting of the last Woman's State Auxiliary it was voted to appoint a committee to investigate the various state projects of other states with the thought that such a survey might be of help to Indiana.
>
> "The following state projects have been investigated by the committee that was appointed for that purpose, and which now wishes to submit the results of the investigation to the state advisors for approval:
>
> "1. Do you feel that it is advisable at this time to undertake a state project?
> "2. General Benevolent Fund.
> "3. Work toward getting bed in preventorium.
> "4. Student Aid Fund for either son or daughter of doctor's family.
> "5. Gather information for History of Pioneer Doctors in State.
> "6. Give credit for hours of volunteer work in National Defense, community, or emergency war work.
> "7. Do you have other suggested projects for the State?
> "8. Cooperation with the League of Women Voters in their study program of socialized medicine."

The Bureau of Publicity approved the eight projects.

"Medical Care Quarterly Journal," advocating socialized medicine, was brought to the attention of the Bureau and a request was made that one member of the Bureau report upon this publication at the next meeting.

The Bureau approved the invitation received by the executive secretary to take part in the program of the American Public Health Association upon "public health education," which is to be held at Atlantic City, October eleventh through October fourteenth. The invitation came from the director of the Bureau of Health Education of the American Medical Association, asking that the executive secretary be one of the speakers on the program on "Participation of Professional Groups in Health Education." The invitation states that a discussion upon the subject of "State Medical Society Press Relationships" is particularly desired.

BUREAU OF PUBLICITY

November 12, 1941.

Present: H. G. Hamer, M.D., chairman; F. M. Gastineau, M.D.; F. W. Taylor, M.D., and T. A. Hendricks, executive secretary.

Following is the list of newspaper releases published by the Bureau since the last meeting:

August 25—"The Spread of Poliomyelitis (Infantile Paralysis)."

Sept. 6—"Care of Acute Poliomyelitis (Infantile Paralysis)."

Sept. 10—"Care of Patients Paralyzed by Poliomyelitis (Infantile Paralysis)."

Releases on annual session:

Sept. 11—General story.

Sept. 12—Scientific program—out-of-state speakers.

Sept. 14—Scientific program—"home talent."

Sept. 15—Clinics.

Sept. 16—Entertainment.

Sept. 18—Woman's Auxiliary.

Sept. 20—Annual banquet.

Sept. 21—Scientific and technical exhibits.

Sept. 22—Golf tournament and trap shoot.

Sept. 24—President's address.

The Bureau made several suggestions as to future releases, one of which is that a series of releases be written entitled "The Truth About Vitamins." One member of the Bureau is to interview several physicians and if possible obtain material for such releases. Another member of the Bureau suggested that a series of articles be prepared upon the subject of "Old Age." Great strides have been made in lowering the mortality rate in the young, and the field of work in regard to old age might be covered profitably by a series of releases.

The annual report of the Bureau and the supplementary report by the chairman to the House of Delegates were approved by the House at the ninety-second annual session.

Reports on meetings:

Oct. 15—Parke-Vermillion County Medical Society, Clinton. "National Defense as Related to the Medical Profession." (15 present.)

Oct. 23—Indiana Chapter of the Catholic Hospital Association of the United States and Canada. "National Defense, the Hospital, the Doctor, and the Nurse." (75 present.)

Oct. 31—League of Women Voters, Kokomo. "Socialized Medicine."

Oct. 31—Indiana State Conference on Social Work, Indianapolis. "The Administration of Medical Care."

Nov. 5—Wabash County Medical Society, Wabash. "Chemotherapy." (25 present.)

Meeting to be held:

Nov. 19—League of Women Voters, Logansport, Indiana. "Socialized Medicine." Speaker obtained for this meeting.

Suggestion was made that several speakers be especially prepared to talk before meetings of the League of Women Voters. The League at this time is studying the subject "Federal Responsibility for Public Health and Health Insurance."

The following excerpt from the minutes of the Executive Committee in regard to the League of Women Voters' meeting which was held at Kokomo on October 31 was brought to the attention of the Bureau:

> "Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association, spoke before the Kokomo League on October thirty-first and discussed the subject with Dr. E. L. Kelly of the Division of Education and Applied Psychology Department of Purdue University. Dr. Kelly, it is reported, and his assistant 'who has just come from California and who has had considerable personal experience with group medicine out there' spoke in favor of health insurance. It is understood that the Kokomo League decided upon a further study of the matter as its members did not want to take a stand at the present time upon a subject so highly controversial."

The revised pamphlet, "Organized Payments for Medical Services," published by the Bureau of Medical Economics of the American Medical Association, was brought to the attention of the Bureau.

Study outline for the Woman's Auxiliary to the Indianapolis Medical Society submitted to the Bureau for approval. The Bureau approved this outline with the exception of the final heading. The Bureau felt that the most important part of the outline is a discussion of heading No. 8 under which the subjects of voluntary, compulsory and group hospital insurance are listed.

The outline, "Objectives and Plans for the Woman's Auxiliary to the Indiana State Medical Association," submitted by the president of the Auxiliary, brought to the attention of the Bureau. The Bureau suggested that an item in regard to "Special Observance of Doctor's Day, March Thirtieth" might be omitted from the program because of the action of the House of Delegates of the American Medical Association several years ago in declining to approve officially such a day.

Disposal of package library material at Indiana University was discussed by the Bureau. The Bureau felt that the Indiana University Medical School library might be interested in having this material.

Films and pamphlets prepared by the Committee on Health and Public Instruction of the State Medical Society of Wisconsin brought to the attention of the Bureau. The Bureau felt that it might be worth while to discuss this material with the secretary of the State Board of Health.

COUNTY SOCIETIES

COUNTY MEDICAL SOCIETY OFFICERS

CLAY COUNTY MEDICAL SOCIETY:
President, J. W. Van Sandt, Carbon
Vice-president, H. L. Muncie, Cloverland
Secretary-treasurer, Robert K. Webster, Brazil

DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY:
President, Robert D. Turner, Muncie
Secretary-treasurer, Ramon Henderson, Muncie

DEARBORN-OHIO COUNTY MEDICAL SOCIETY:
President, E. P. Drohan, Lawrenceburg
Vice-president, G. S. Fessler, Rising Sun
Secretary-treasurer, J. C. Elliott, Guilford

ELKHART COUNTY MEDICAL SOCIETY:
President, C. K. Bender, Goshen
Vice-president, H. K. Lemon, Goshen
Secretary-treasurer, A. C. Yoder, Goshen

FLOYD COUNTY MEDICAL SOCIETY:
President, Harry E. Voyles, New Albany
Vice-president, Kenneth H. Brown, New Albany
Secretary-treasurer, Irene Polhemus, New Albany

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY:
President, R. L. Hane, Fort Wayne
Vice-president, E. N. Mendenhall, Fort Wayne
Secretary, Paul L. Stier
Treasurer, M. F. Popp, Fort Wayne

GIBSON COUNTY MEDICAL SOCIETY:
President, H. G. Petitjean, Haubstadt
Vice-president, H. M. Arthur, Hazelton
Secretary-treasurer, O. M. Graves, Princeton

GRANT COUNTY MEDICAL SOCIETY:
President, Fred W. Tavenner, Gas City.
Vice-president, G. G. Eckhart, Marion.
Secretary-treasurer, E. O. Daniels, Marion.

GREENE COUNTY MEDICAL SOCIETY:
President, Frank A. Van Sandt, Bloomfield.
Vice-president, Wm. H. Craft, Linton.
Secretary-treasurer, G. E. Moses, Worthington.

HAMILTON COUNTY MEDICAL SOCIETY:
President, J. C. Ambrose, Noblesville
Vice-president, Frank Rodenbeck, Arcadia
Secretary-treasurer, Harold D. Hill, Noblesville

HARRISON COUNTY MEDICAL SOCIETY:
President, Edgar W. Murphy, Lanesville
Vice-president, L. Glenn, Ramsey
Secretary-treasurer, William E. Amy, Corydon

HOWARD COUNTY MEDICAL SOCIETY:
President, Richard P. Good, Kokomo
Vice-president, T. J. Bruegge, Kokomo
Secretary-treasurer, F. M. Wilson, Kokomo

HUNTINGTON COUNTY MEDICAL SOCIETY:
President, Paul M. Gray, Huntington
Vice-president, H. C. Woods, Markle
Secretary-treasurer, G. M. Nie, Huntington

INDIANAPOLIS (MARION COUNTY) MEDICAL SOCIETY:
President, Goethe Link, Indianapolis.
Vice-president, Martha Souter, Indianapolis.
Secretary-treasurer, William M. Dugan, Indianapolis.

JASPER-NEWTON COUNTY MEDICAL SOCIETY:
President, W. G. Pippenger, Brook
Secretary-treasurer, Richard Schantz, Remington

JENNINGS COUNTY MEDICAL SOCIETY:
President, B. W. Thayer, Scipio
Vice-president, W. H. Stemm, North Vernon
Secretary-treasurer, D. L. McAuliffe, North Vernon

KNOX COUNTY MEDICAL SOCIETY:
President, Kenneth L. Shaffer, Vincennes
Vice-president, Maurice S. Fox, Bicknell
Secretary-treasurer, Claudius L. Boyd, Vincennes

KOSCIUSKO COUNTY MEDICAL SOCIETY:
President, E. W. Thomas, Leesburg
Vice-president, L. A. Laird, North Webster
Secretary-treasurer, H. F. Steele, Claypool

LAPORTE COUNTY MEDICAL SOCIETY:
President, R. A. Fargher, LaPorte
Vice-president, H. A. Garner, Hanna
Secretary-treasurer, F. M. Fargher, Michigan City

MADISON COUNTY MEDICAL SOCIETY:
President, Perry E. Cotton, Elwood.
Vice-president, K. D. Ayres, Anderson.
Secretary-treasurer, M. A. Austin, Anderson.

MARSHALL COUNTY MEDICAL SOCIETY:
President, A. A. Thompson, Tyner
Vice-president, H. H. Tallman, Culver
Secretary-treasurer, L. W. Vore, Plymouth

MONROE COUNTY MEDICAL SOCIETY:
President, Neal Baxter, Bloomington
Vice-president, Rodney Smith, Bloomington
Secretary-treasurer, Herman S. Hepner, Bloomington

NOBLE COUNTY MEDICAL SOCIETY:
President, Q. F. Stultz, Ligonier
Vice-president, C. M. Bowman, Albion
Secretary-treasurer, W. F. Carver, Albion

PARKE-VERMILLION COUNTY MEDICAL SOCIETY:
President, Joseph R. Bloomer, Rockville
Secretary-treasurer, A. E. Sabin, Dana

PULASKI COUNTY MEDICAL SOCIETY:
President, C. E. Linton, Medaryville
Secretary-treasurer, T. E. Carneal, Winamac

RIPLEY COUNTY MEDICAL SOCIETY:
President, J. C. Bigham, Batesville
Vice-president, M. F. Daubenheyer, Holton
Secretary-treasurer, Wm. C. McConnell, Sunman

RUSH COUNTY MEDICAL SOCIETY:
President, Willard C. Smullen, Rushville
Vice-president, J. F. Bowen, Rushville
Secretary-treasurer, Willard Worth, Milroy

SPENCER COUNTY MEDICAL SOCIETY:
President, C. L. Springstun, Chrisney
Vice-president, C. D. Ehrman, Rockport
Secretary-treasurer, J. C. Glackman, Jr., Rockport

STEUBEN COUNTY MEDICAL SOCIETY:
President, L. L. Eberhart, Angola
Vice-president, M. M. Crum, Angola
Secretary-treasurer, W. H. Lane, Angola

SWITZERLAND COUNTY MEDICAL SOCIETY:
Secretary-treasurer, R. M. Copeland, Vevay

WARRICK COUNTY MEDICAL SOCIETY:
President, P. B. Hoover, Boonville
Vice-president, W. C. Stover, Boonville
Secretary-treasurer, C. L. Luckett, Boonville

WASHINGTON COUNTY MEDICAL SOCIETY:
President, Irvin E. Huckleberry, Salem
Secretary-treasurer, T. Kermit Tower, Campbellsburg

WAYNE-UNION COUNTY MEDICAL SOCIETY:
President, W. R. Taylor, Richmond
Vice-president, Emil Kenyon, Cambridge City
Secretary-treasurer, Gladys Hill-Harmon, Richmond

WHITLEY COUNTY MEDICAL SOCIETY:
President, E. V. Nolt, Columbia City
Vice-president, E. A. Hershey, Churubusco
Secretary-treasurer, O. F. Lehmberg, Columbia City

LOCAL SOCIETY REPORTS

Adams County Medical Society members held a meeting at Decatur on November twenty-fifth. Guy Brown, chairman of the County Welfare Board, discussed new welfare laws. Nine members were in attendance at the meeting.

* * *

Cass County Medical Society members held their regular monthly dinner meeting at the St. Joseph hospital at South Bend on November twenty-first. Virgil Sheppard, director of the Division of Public Assistance, State Department of Public Welfare, Indianapolis, was the speaker of the evening.

* * *

Clay County Medical Society members met at the Benwood Farms on December second. After the dinner officers were elected for 1942.

The Clay County Medical Society Secretary reports the following activities for the past year: "The Clay County Medical Society has cooperated with the Clay County Tuberculosis Association in the second year of a five-year Tuberculosis Control program, and every senior high school student who desired a T. B. test was given a free test. The Society has operated the Public Health Syphilis Clinic as a Society project for its third consecutive year, averaging thirty-two patients each weekly clinic night. The Secretary is the director of this clinic, and the various staff members are members of the Society. We believe this has been one of our most noteworthy projects, since it takes care of indigent patients and those who need policing."

* * *

Dearborn-Ohio County Medical Society members held a meeting October thirtieth at The Manor, Lawrenceburg. Doctor William M. German, Cincinnati, Ohio, was the speaker and his paper was entitled "Colombia, South America and Her People." Technicolor films were also shown in connection with the paper. Fifteen members were present.

On November twenty-seventh a special business session was held. A discussion took place on "Industrial Practice and New Welfare Aid Law." Twelve members were present at the meeting.

At a meeting held at the Dillsboro Sanitarium on December fourth, Kodachrome pictures, mainly of the Ohio River Valley, were shown. Officers were elected for 1942. This night marked the annual guest night, and the meeting was preceded by a banquet. Sixteen members and fourteen guests attended.

* * *

Delaware-Blackford County Medical Society members met at the Hotel Roberts, Muncie, on November eighteenth. Doctor Robert Hill, of Muncie, gave a paper on "Diagnosis and Treatment of Common Diseases of the Oral Cavity." Officers were elected for 1942. Thirty-seven members attended the meeting.

* * *

Elkhart County Medical Society members held a dinner meeting on November thirteenth at Hotel Elkhart. A lecture was given on abdominal surgery by Doctor Willis Gatch, dean of the Indiana University School of Medicine, Indianapolis. Forty-five members attended the meeting.

* * *

Floyd County Medical Society members met at the St. Edward's Hospital in New Albany on December twelfth. Doctor James Baxter, Jr., of New Albany, spoke on "Malaria in Floyd County." Fourteen members attended the meeting.

* * *

Fountain-Warren County Medical Society members met at the Mudlavia Hotel on November sixth for a dinner meeting. Virgil Sheppard, director of the Division of Public Assistance, State Department of Public Welfare, spoke on "Medical Care of Recipients of Welfare Funds." The directors of the welfare societies of Vermillion, Fountain and Warren counties, were guests at this meeting. Eighteen members and guests were present at the meeting.

* * *

Gibson County Medical Society members met on December eighth at the Gibson General Hospital, at Princeton, for their regular monthly meeting. The speakers for the evening were Doctors W. B. Wood and H. H. Alexander of Princeton; Charles Emerson and Judge A. Dale Eby took part in a general round-table discussion, some of the subjects being: "Venereal Clinic," "T. B. Patch," and "Welfare Set-up—Applicants to Riley and Long Hospitals." Twenty-four members attended the meeting.

* * *

Greene County Medical Society members held a meeting on December twelfth at the Freeman Hospital in Linton. An election of officers took place following the dinner. Twelve members were present at the meeting.

* * *

Hamilton County Medical Society members held their meeting on November eighteenth at the Community House in Sheridan. A dinner preceded the meeting and was served by the American Legion Auxiliary.

* * *

Hancock County Medical Society members held a meeting at the Cozy Hotel at Greenfield on November thirteenth. The speaker of the evening was Doctor J. S. Leffel, of Connersville, his subject being "Medical Aid to Public Assistance Recipients." A discussion followed by members of the society and Doctor Samuel Kennedy of Shelbyville. Seventeen members attended the meeting.

* * *

Hendricks County Medical Society members met at Crawleys Hall for their regular monthly meeting on November fourteenth. Doctor H. H.

Wheeler, of Indianapolis, spoke on "Some Conditions of the Rectum which the General Practitioner May Care For." Slides were shown as part of the lecture.

* * *

Huntington County Medical Society members held their regular monthly meeting on December second in Huntington. A paper entitled "Skin Diseases as Met in General Practice" was given by Doctor S. R. Mercer of Fort Wayne. Election of officers also took place. Thirteen members were present at the meeting.

* * *

Indianapolis (Marion County) Medical Society members met on December second at the Indianapolis Athletic Club for their annual business meeting and election of officers.

* * *

Jasper-Newton County Medical Society members met at the Methodist Church at Kentland on December fourth. Doctor N. K. Forster, of Hammond, was the speaker of the evening.

* * *

Jay County Medical Society members held a meeting at the Jay County Hospital in Portland, on December fifth, with election of officers. Doctor Thurman B. Rice, of Indianapolis, spoke on "Cause of Dental Caries." Forty members and guests attended the meeting, including physicians, dentists and their wives.

* * *

LaPorte County Medical Society members held a meeting at the Spaulding Hotel, Michigan City, on November thirteenth. Doctor Philip Lewin, associate professor of Orthopedic Surgery, Northwestern University Medical School, gave a paper on "Low Back Pain and the Sciatic Syndrome." Twenty-four members were present at the meeting.

LaPorte County Medical Society members met at the LaPorte Country Club, LaPorte, on December eleventh. The meeting which followed the dinner was of a social nature. Mr. Hoyt Hurst, of Gary, spoke on "The Big Book." Mr. Thomas A. Hendricks, executive secretary of the Indiana State Medical Association, and Doctor Alfred Ellison, of South Bend, gave short talks. Sixty-five members and guests attended the meeting.

* * *

Lawrence County Medical Society members held a dinner meeting on November twelfth at the Dunn Memorial Hospital for a reorganization of the hospital medical staff. No other business was discussed during the meeting.

* * *

Madison County Medical Society members held their regular monthly meeting in Anderson on December fifteenth. Doctor J. S. Leffel, of Connersville, spoke on the new law affecting Public Welfare clients. A discussion followed his talk. Forty-five members were present.

Marshall County Medical Society members met for a luncheon-business meeting at the Hi-Way Inn on December third. Election of officers took place, and some business matters of the society were discussed.

* * *

Morgan County Medical Society members held a dinner-meeting on November nineteenth at the Memorial Hospital at Martinsville. Guest speakers of the evening were Thomas A. Hendricks, executive secretary of the Indiana State Medical Association, and Doctor John Leffel, of Connersville.

* * *

Noble County Medical Society members held a meeting on December second at Albion. Doctor Don Cameron, of Fort Wayne, was the principal speaker, his topic being "The Recognition and Treatment of Obstruction of the Small Bowel." One hundred and twenty members were present at the meeting.

* * *

Northeastern Indiana Academy of Medicine members met on November twenty-ninth at Kendallville to hear Doctor M. A. Austin, president-elect of the Indiana State Medical Association, speak on "Evolution or Revolution." Physicians from Noble, Steuben, Lagrange and DeKalb counties attended the meeting.

* * *

Parke-Vermillion County Medical Society members attended a meeting of the Society on November nineteenth at the Vermillion County Hospital at Clinton. Doctor George W. Bowman, of Indianapolis, was the speaker of the evening; his paper was entitled "Syphilis in Indiana." Steps were also taken at the meeting to establish a venereal clinic at Clinton, to serve both counties. Fourteen members attended the session.

* * *

Perry County Medical Society members held a business meeting on September sixteenth at the City Hall in Tell City.

* * *

Pike County Medical Society members met at the Miller Hospital at Winslow on November twenty-first. Five members attended the meeting.

* * *

Randolph County Medical Society members held their regular monthly meeting November tenth at the Randolph County Hospital, Winchester. Kenneth M. Harris, manager of the Credit Bureau at Winchester, was the speaker of the evening.

* * *

Shelby County Medical Society members met at the Major Hospital, Shelbyville, on November fifth. Doctor C. Basil Fausset, of Indianapolis, gave a paper on "Thoracic Surgery." There were sixteen members in attendance at the meeting.

* * *

Spencer County Medical Society members held a meeting at Rockport on November twenty-sixth for the election of officers. There was also a dis-

cussion regarding the opening of a venereal clinic in Spencer County. Ten members were present at the meeting.

* * *

St. Joseph County Medical Society members met at the Indiana club at South Bend on December second. Annual committee reports were submitted and election of officers took place.

* * *

Sullivan County Medical Society members held a meeting in Sullivan on December third. Doctor K. G. Kohlstaedt, of Indianapolis, gave a paper entitled "Blood Pressure Research." Forty members were present at the meeting.

* * *

Tippecanoe County Medical Society members held a meeting at the Lafayette Country Club on November eleventh. Doctor A. C. Corcoran, of Indianapolis, spoke on "Hypertension—Causes and Treatment." Forty-eight members attended the meeting.

On November twenty-first in the Purdue Union Building, the Society entertained dentists of Lafayette and physicians and dentists from surrounding counties and their wives at a dinner which was prepared by the Woman's Auxiliary of the Tippecanoe County Medical Society. Doctor Morris Fishbein, editor of *The Journal of the American Medical Association*, was the speaker of the evening.

* * *

Tri-County Medical Society members held their regular monthly meeting at Dewey's Cafe on November twenty-fifth. Public health nursing was discussed.

* * *

Washington County Medical Society members met at Salem on December third for their regular monthly meeting. The dinner was followed by a paper on "Rheumatic Fever," by Doctor Philip Mull of Pekin. All members of the society were present at the meeting.

* * *

COUNCILOR DISTRICT REPORTS

Fourth District Medical Society Meeting

The Fourth District Medical Society held a one-day meeting on December third at the Muscatatuck State Park Inn, near Vernon. The morning session included the discussion and demonstration of orthopedic cases, under the supervision of Doctor George J. Garceau, associate professor of Orthopedics, Indiana University School of Medicine, and assistants. The subject of the entire meeting was "Crippled Children." After the luncheon, other demonstrations were also given by Doctor Garceau. Hazel Johnson, orthopedic nurse of the Division of Services for Crippled Children, and Louise A. Bailey, physical therapist of the Division of Services for Crippled Children were the discussants at the afternoon meeting.

Twelfth District Medical Society Meeting

The Twelfth District Medical Society members were entertained at a dinner meeting on November eighteenth by the staff and management of the Irene Byron Sanatorium. Doctor John Barnwell, of the University of Michigan, was the speaker of the evening, his subject being "Diagnosis of Early Tuberculosis." Approximately ninety guests were present.

WOMAN'S AUXILIARY

President—Mrs. Ernest O. Nay, Terre Haute.
President-Elect—Mrs. Arnold Duemling, Fort Wayne.
Corresponding Secretary—Mrs. Don M. Mattox, Terre Haute.
Treasurer—Mrs. T. R. Hayes, Muncie.

At the board meeting of the Woman's Auxiliary to the Indiana State Medical Association, Mrs. E. O. Nay presented the following objectives and plans:

1. Expansion of Public Relations.
   - A. Promote sale of *Hygeia* as a defense project.
     - Contains authoritative information of health, nutrition and diets valuable to laity.
   - B. Legislation.
     - Study current medical legislation.
     - Practical workings of politics (*Bulletin*, post-convention, 1941).
   - C. Study of Nutrition for Health Defense.
     - Help to secure qualified health speakers for various clubs.
     - Lend active assistance to all constructive health projects, national and local.
   - D. Organization and membership.
   - E. Emphasize special projects.
2. Compile History of Pioneer Physicians of Indiana.
   - A. Search records at courthouses and librararies for earliest account of physicians in your county.
   - B. Select one physician and find all possible material about him—his personality, his practice and any anecdotes.
   - C. Contact any living descendants.
   - D. Suggest that this material be used as basis for one program during the year, and file the data with the Auxiliary State Historian.
3. Increase subscriptions to the *Bulletin of the Woman's Auxiliary to the A.M.A.*
   - A. The *Bulletin* is the only medium by which we may keep in contact with the work of the National Auxiliary.
   - B. All plans and suggestions for each department of the Auxiliary are given in the *Bulletin*.

To illustrate further her second part of the plan,

Mrs. Nay gave a few historical points from which to work: In the 1816 Legislature the first medical law was passed, in what was then Knox County. In 1826 the medical society disintegrated when asked to meet in Indianapolis because members felt that that was too far to go. From that time on there was no legal restriction on medical practice. In 1897 the first Board of Medical Registration was formed. The law requiring a high school education was first passed in 1903.

The principal speaker for the afternoon was Dr. Cleon Nafe of Indianapolis, who discussed the relationship between the medical profession and the present emergency.

LOCAL AUXILIARY REPORTS

Forty-six hundred people heard Dr. W. W. Bauer, director of the A.M.A. Bureau of Health Education, during his lectures in Fort Wayne on November fourth. These were presented to the people of Fort Wayne by the Woman's Auxiliary to the Allen County Medical Society. "Popular Beliefs That Are Not So," was the subject of his lectures to the pupils of the three public high schools, and for the Auxiliary members at its regular meeting his topic was "The Doctor's Wife." The evening meeting was preceded by a dinner given in the Old Fort Room at the Indiana Hotel, at which time Dr. Bauer spoke informally to the guests who were members of the Auxiliary Board of Directors and their husbands, the physicians of the Auxiliary Advisory Council and the Executive Board of the Fort Wayne Medical Society and their wives.

The Cass County Auxiliary met with the Cass County Medical Society on November fourteenth at the St. Joseph's Hospital. Mr. Virgil Sheppard discussed the new medical program, as provided by the last State Legislature.

On November eleventh the Delaware-Blackford County Auxiliary met for a dinner meeting at the Y.W.C.A. Mrs. Lester Smith, of Indianapolis, was the guest speaker. She spoke about the portion of the League of Women Voters program which concerns public health.

"Red Cross Work in Elkhart County" was the subject discussed by Dean Barnhart, chairman of the Goshen Red Cross Chapter, at the December fourth meeting of the Elkhart County Medical Auxiliary.

"What Women Can Do to End War" was the subject discussed by Mrs. Emmett Horine, of Louisville, Kentucky, at the November meeting of the Floyd County Medical Auxiliary. The meeting was held at the New Albany Country Club.

Dr. Palmer R. Gallup, psychiatrist on the staff of the Indiana State Prison, spoke on "Treatment and Correction of Mental Ailments" at the November thirteenth meeting of the La Porte County Auxiliary held at the Spaulding Hotel, Michigan City.

The Auxiliary to the Northeastern Academy of Science meet in Kendallville on November twenty-seventh. This was a business and social meeting.

Mrs. Lester Smith of Indianapolis will lead a study group for members of the Marion County Auxiliary, beginning in January and meeting every two weeks for about four months. The subject will be "Medical Economics."

At the regular November meeting of the Tippecanoe County Medical Auxiliary, plans were completed for the dinner meeting on November twenty-first at which Dr. Morris Fishbein would speak.

Dr. J. H. Weinstein spoke on "Socialized Medicine" at the Vigo County Auxiliary meeting held on November third in Terre Haute. There was a general discussion of the various ways in which members can be well informed on this subject.

ABSTRACT

"IRON LUNGS" ARE NOT LIVING UP TO EXPECTATIONS HELD FOR THEM

The mechanical or artificial respirator, sometimes called the "iron lung," is not measuring up to the high hopes originally held for its usefulness in saving lives or in the treatment of that type of infantile paralysis involving the muscles of breathing, *The Journal of the American Medical Association* for July 26 says in an editorial discussing the findings of a recent survey made for the National Foundation for Infantile Paralysis. *The Journal* says:

"At least six hundred and eighty mechanical respirators are available in the United States. An estimate of their value in poliomyelitis, subject to the limitations of the questionnaire method, was obtained by Wilson for the National Foundation for Infantile Paralysis. Replies to the questionnaire were received concerning four hundred and twenty of the respirators owned by three hundred and thirty-five hospitals, other institutions or individuals. The purposes of the survey were (1) to determine the total number of patients with poliomyelitis treated by means of respirators in the year 1940, (2) to determine to what use available respirators have been put, (3) to obtain some idea of the use of the respirators for patients other than those with poliomyelitis and (4) to attempt to evaluate the accuracy of diagnosis and of judgment shown in selecting the right type of patient to be placed in a respirator.

"Of the three hundred and thirty-five returns, one hundred and thirty-two reported having had patients with poliomyelitis treated in respirators, with a total of 331 patients. Wilson believes that between 400 and 500 patients with poliomyelitis were treated in respirators in the United States during 1940. In addition to the 331 patients with poliomyelitis who were treated, 136 patients with other diseases were placed in respirators. Twenty-nine per cent of the victims of poliomyelitis were under 10 years of age, 41 per cent between 10 and 20 years of age and 30 per cent over 20 years. Only 52

per cent of patients with poliomyelitis were placed in respirators on the fourth day of the disease or earlier, whereas 25 per cent were put in the respirator on the seventh day of their disease or later. Apparently there is a surprisingly high incidence of respirator patients in the older age groups and a large percentage of patients not treated with respirators until comparatively late. Possibly a considerable number of these patients were neglected and should have had respirator treatment earlier.

"Of the total number of patients with poliomyelitis reported, over 60 per cent (204 patients) were stated to have the 'bulbar' form of the disease or it was indicated that they had difficulty in swallowing. Many of these patients probably should not have been put in respirators, but this cannot be definitely stated because the bulbar symptoms, which cannot be helped by respirators, may have been associated with paralysis of the respiratory muscles, which can be so helped. Of the 204 patients stated to have the 'bulbar' form of the disease or indicated as having difficulty in swallowing, all but 17 were reported as having intercostal or intercostal and diaphragmatic paralysis. Patients who have trouble with swallowing often breathe irregularly and shallowly and act as if they have intercostal paralysis when actually they do not. Hence many of these cases were no doubt inaccurately diagnosed. Twelve patients were reported as having difficulty in swallowing but were not stated to have the 'bulbar' form of the disease; these were wrongly diagnosed. Twenty-eight were stated to have the 'bulbar' form without difficulty in swallowing being noted; all of these but 8 were recorded as having intercostal or diaphragmatic paralysis. The accuracy of these reports can likewise be justifiably doubted. A question was asked about the paralysis of the deltoid muscles. Although it is well established that intercostal paralysis rarely occurs without associated paralysis of the deltoids or upper arms, 40 cases were recorded in which intercostal paralysis was reported without indication of deltoid paralysis. This number is more than would be expected and probably is inaccurate. The remaining 101 patients were indicated as having had paralysis of the intercostal muscles or the diaphragm but were not reported as having difficulty in swallowing or were not stated to have the 'bulbar' form of the disease. Thirty-three of these were indicated as having intercostal paralysis alone. Three cases of diaphragmatic paralysis were reported, but this cannot be challenged because, although this condition is rare, a few could be expected.

"The data obtained, while not conclusive, are suggestive. Of the 331 patients with poliomyelitis treated in respirators, 150, or 45 per cent, died. One hundred and twenty-seven of the 150 fatal cases were those reported as having the 'bulbar' form of the disease or as having difficulty in swallowing. Of the 204 'bulbar' patients 127 died, a fatality rate of 67 per cent, while of the 127 nonbulbar patients 23 died, a fatality rate of 19 per cent. The high mortality in the 'bulbar' groups is to be expected. Many of the patients who died were in the machines only a short time and probably could not have been expected to be materially helped.

"There were reports of frequent lending of machines from one hospital to another; although commendable, it is evident that in some instances dependence on a borrowed machine must mean confusion and delay in instituting treatment.

"From this analysis, apparently the practical aspects of the use of respirators for the respiratory paralysis of poliomyelitis is not always satisfactory. Patients with the 'bulbar' form of the disease are given respirator treatment in some instances in which such treatment cannot be expected to be of benefit. Diagnosis and judgment related to the employment of respirators should be much improved. Finally, the delay in initiation of respirator treatment appears to be, in many instances, much greater than could possibly be warranted. Although Wilson's report does not make the definite statement, it is clear that the use of respirators for poliomyelitis is often disappointing. Experience with this device certainly does not approach the high expectations for saving lives which were originally anticipated."

BOOKS
RECEIVED

THE DOCTORS MAYO. By Helen Clapesattle. 712 pages. Illustrated. Price $3.75. The University of Minnesota Press, Minneapolis, 1941.

SYNOPSIS OF ALLERGY. By Harry L. Alexander, A.B., M.D., Professor of Clinical Medicine, Washington University School of Medicine, St. Louis; Editor of the Journal of Allergy. 246 pages. Illustrated. Fabrikoid. Price $3.00. The C. V. Mosby Company, St. Louis, 1941.

IMMUNOLOGY. By Noble Pierce Sherwood, Ph.D., M.D., F.A.C.P., Professor of Bacteriology, University of Kansas, and Pathologist to the Lawrence Memorial Hospital, Lawrence, Kansas. Second Edition. 639 pages. 27 illustrations including 7 color plates. Cloth. Price $6.50. The C. V. Mosby Company, St. Louis, 1941.

SYNOPSIS OF GENITOURINARY DISEASES. By Austin I. Dodson, M.D., F.A.C.S., Professor of Genitourinary Surgery, Medical College of Virginia; Urologist to St. Elizabeth's Hospital and St. Luke's Hospital. Third Edition. 302 pages with 112 illustrations. Fabrikoid. Price $3.50. The C. V. Mosby Company, St. Louis, 1941.

TREATMENT OF THE PATIENT PAST FIFTY. By Ernst P. Boas, M.D., Associate Physician, Mount Sinai Hospital, New York City; Chairman, Committee on Chronic Illness, Welfare Council of New York City; Assistant Clinical Professor of Medicine, Columbia University. 324 pages. 19 illustrations. Cloth. Price $4.00. The Year Book Publishers, Inc., Chicago, 1941.

THE 1941 YEAR BOOK OF GENERAL MEDICINE. Edited by George F. Dick, M.D.; J. Burns Amberson, Jr., M.D.; George R. Minot, M.D., S.D., F.R.C.P., (Edinburgh and London); William B. Castle, M.D., S.M., M.D., (Hon.) Utrecht; William D. Stroud, M.D., and George R. Eusterman, M.D. 848 pages. Illustrated. Cloth. Price $3.00. The Year Book Publishers, Inc., Chicago, 1941.

NUTRITIONAL DEFICIENCIES—Diagnosis and Treatment. Edited by John B. Youmans, A.B., M.S., M.D., Associate Professor of Medicine and Director of Postgraduate Instruction, Vanderbilt University Medical School, Nashville, Tennessee. Assisted by E. White Patton, M.D. 385 pages, with 16 illustrations. Price $5.00. J. B. Lippincott Company, Philadelphia, 1941.

THE TOXEMIAS OF PREGNANCY. By William J. Dieckmann, M.D., Associate Professor of Obstetrics and Gynecology, The University of Chicago; Attending Obstetrician, The Chicago Lying-in Hospital and Dispensary; Attending Gynecologist, Albert Merrit Billings Memorial Hospital of the University of Chicago; Associate Editor of the American Journal of Obstetrics and Gynecology. 521 pages. 50 text illustrations and 3 color plates. Cloth. Price $7.50. The C. V. Mosby Company, St. Louis, 1941.

BOOKS
REVIEWED

SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES. By George R. Herrmann, M.S., M.D., Ph.D., F.A.C.P., Professor of Medicine, University of Texas, Director of the Cardiovascular Service, John Sealy Hospital, Consultant in Vascular Diseases, U. S. Marine Hospital. Second edition, completely revised and reset, 91 illustrations with some in colors. 468 pages. Cloth binding. Price $5.00. The C. V. Mosby Company, St. Louis, 1941.

This is a valuable book for the medical student and physician in general practice who has not too much

(Continued on page xxi)

(Continued from page 58)

time to spend on the vast amount of literature on diseases of the heart and arteries.

The scope and plan of this book presents, throughout, a very systematic study of the entire field. It wisely repeats the importance of following the so-called classical method of studying heart disease, namely, etiological, anatomical, and physiological. The author stresses the value of bedside diagnosis and shows when and where laboratory work should be used. Treatment for each condition is adequately discussed, and the physician will find that the information is practical and is quickly obtained.

The book has 468 pages, including a detailed index; it is small and easily carried about. The added chapter on risks of cardiovascular patients undergoing surgical treatment and obstetrical management of cardiovascular patients should be of great interest to all practitioners. The last chapter covers the study of military cardiovascular examination and interpretation, which all examiners on the Draft Board should read.

This book is a synopsis and makes no effort at exhaustive discussion. It is an outcome of the author's lectures and his personal experiences in this field. It presents to the practitioner the present-day concept and treatment of diseases of the heart and vascular system.

G. M. C.

THE CARE OF THE AGED (Geriatrics). By Malford W. Thewlis, M.D., Attending Specialist, General Medicine, United States Public Health Hospitals, New York City; Attending Physician, South County Hospital, Wakefield, Rhode Island; Special Consultant, Rhode Island Department of Public Health. Third edition, entirely rewritten. 579 pages. 6 x 9 inches, with 50 illustrations. Cloth. Price $6.00. The C. V. Mosby Company, St. Louis, 1941.

This is a completely rewritten third edition of a much needed work that should be read by every general practitioner. It is easy to read and easy to comprehend. With the marked increase of those past the half century mark in life the problems of senescence have assumed an ever increasing place in the practice of medicine. These diseases and degenerative changes need a different evaluation and treatment from that of the younger patient. This is the theme of this book, and the author stresses over and over the fact that the senescent body carries a different physiology and pathology from that of youth and middle-life. If the medical profession has brought about an increase in the length of life and in the number of those living to the age of senescence, it is incumbent upon us to make these later years profitable and enjoyable.

The author attempts to provide a textbook for the physician so that he may know how to meet these special problems that come with age. Each chapter is written as a unit and attempts to be complete in its subject matter, even at the expense of some repetition. The different chapters cover the various conditions that occur in the aged and in those which are common to other ages of life. He discusses the differences which occur in these diseases when they affect the senescent. The chapters upon the cardiovascular system, the genito-urinary system, and surgery in the aged are especially worth studying. His oft repeated admonition not to allow the aged to remain in bed too long and his early use of the sitting position in surgical cases are well worth noting, as well as the teaching that the aged need occupation, but that the occupation must be suitable to their abilities.

This book certainly fills a present need and opens the way to much further work with the aged. The profession is slow to recognize geriatrics as a specialty, but when one reads this book he cannot help but see the future that lies before this neglected subject of "the care of the aged."

J.B.M.

PROFESSIONAL PROTECTION

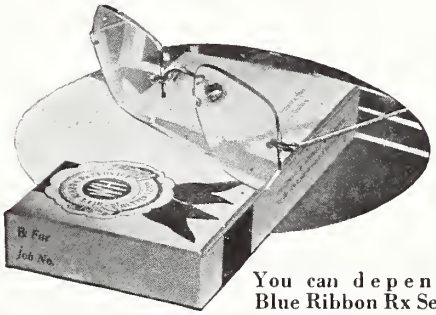
SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"My son is in the Army Medical Corps at the present time as he was in the Reserves and was called into service. I speak for him as well as myself to say that we are very well satisfied with the manner in which you took care of this case."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

THERE IS A DIFFERENCE IN Rx SERVICE



You can depend on Blue Ribbon Rx Service

THE WHITE-HAINES OPTICAL CO.

INDIANAPOLIS and SOUTH BEND

ABSTRACT

SAYS BLOOD PRESSURE READINGS FOR TEN CENTS ARE DANGEROUS

Labeling a device which on the deposit of ten cents in a slot gives a person his blood pressure and pulse rate as "dangerous mechanical medicine," *The Journal of the American Medical Association* for November 15 says that "Regardless of the quality of the work done by the machine, the whole idea is unsound and psychologically dangerous to the human being." *The Journal* editorial says:

"Recently some sixty drug stores in the city of Chicago have added to their equipment a device called the Cardi-O-Meter, which enables any person who will put his arm in a strap and deposit ten cents in the slot to get a record of his blood pressure and of his pulse rate. This is not the first time that various schemes have been developed for measuring the blood pressure by nonmedical agents who collect a dime. The plan burst forth not long ago on Coney Island in New York and on the Boardwalk in Atlantic City. It was in effect in St. Petersburg, Fla., where many a middle aged westerner goes to keep warm in winter. However, now the recording of blood pressure, it seems, is going to be wholly mechanical.

"Americans are great believers in gadgets. The time may yet come when some ingenious mechanic, working in a machine shop, will promote a contraption designed to furnish a complete physical examination, including the basal metabolic rate, an electrocardiographic tracing, a vital capacity test with a spirometer, a muscle test with an ergograph, and the pulse and blood pressure recorded by the Cardi-O-Meter. All the former technics would be as meaningless and perhaps even less dangerous than uninformed attempts to interpret blood pressures. Indeed, just another step will carry the promoters to the provision of a complete x-ray picture of the chest and of the gastrointestinal tract following the dropping of some coins in slots. Brains, judgment and skill may then be relegated to the scrap heap of unessential accessories.

"And if the druggists are going to put in the pulse and blood pressure equipment, there is no reason why pharmacy should not branch out into other branches of the practice of medicine. Instances have already been reported in which the corner drug store has been suggested as a suitable place for chemical tests of the urine and even for blood tests and hemoglobin determination.

"Slot machines are nothing new in the drug business. You can gamble in a good many drug stores in the United States and shoot little balls at marks labeled from 50 to 5,000. Would it be surprising to see some one develop the use of the Cardi-O-Meter to the point where a blood pressure of 160 would get you $1.20 in trade?

"Regardless of the quality of the work done by the machine, the whole idea is unsound and psychologically dangerous to the human being. There are already too many blood pressure invalids created by present technics and writings without encouraging the recording of blood pressure by the 'ten cents in the slot technic.'

"The promoters of the Cardi-O-Meter insist that the device was developed through consultation with 'outstanding heart men of the city, including Dr. Nathan S. Davis, who was president of the Illinois Heart Association.' Apparently, on the advice of Dr. Davis, according to the firm, they decided 'we would not take them higher than 200 in order not to frighten any one.' Dr. Davis has stated, however, that they have no authority to use his name in the promotion of the device; certainly the Illinois Heart Association did not permit itself to be quoted in the promotion. Nevertheless drug clerks make the statement that the device has been approved by the Illinois Heart Association. If the pharmacists are sincere in their desire to advance the standards of their profession as one of the technics associated with the practice of medicine, they will not permit themselves to be drawn into the exploitation of this kind of dangerous mechanical medicine."

ATHLETE'S FOOT

A mixture of carbolic acid and camphor has been found effective in the treatment of "athlete's foot," Edward Francis, M.D., Washington, D. C., states in *The Journal of the American Medical Association* for December 6.

"The mixture," he says, "is nonirritating to the skin and may be painted between the toes several times a day. . . . The sock may be replaced immediately without danger of corrosion. There is no discoloration of the clothing. Relief from itching is immediate. . . . It should be pointed out, however, that the phenol-camphor preparation should not be applied to the wet skin since water causes a breakdown of the preparation with the result that it becomes caustic (corrosive)."

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

October, 1941

DISEASES	*Oct. 1941*	*Sept. 1941*	*Aug. 1941*	*Oct. 1940*	*Oct. 1939*
Tuberculosis, Active	86	138	144	113	92
Tuberculosis, Arrested	3	8	10	0	0
Chickenpox	79	16	15	166	128
Measles	16	10	56	35	30
Scarlet Fever	200	50	33	200	320
Smallpox	1	1	3	4	24
Typhoid Fever	9	15	16	15	8
Whooping Cough	44	67	84	74	155
Diphtheria	65	17	19	33	89
Influenza	72	46	18	21	10
Pneumonia	50	43	44	36	23
Mumps	10	8	1	35	54
Poliomyelitis	9	36	35	89	19
Meningitis	1	1	4	6	2
Undulant Fever	2	4	2	1	8
Rubella	1	0	0	0	0
Dysentery	1	1	0	1	0
Malaria	9	2	0	1	27
Encephalitis	1	0	0	0	0

ZEMMER
Write for Catalogue
THE ZEMMER COMPANY
OAKLAND STATION, PITTSBURGH, PA.
IN 1-42

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 FEBRUARY, 1942 NUMBER 2

TREATMENT OF CORONARY THROMBOSIS*

FRED M. SMITH, M.D.

IOWA CITY, IOWA

In order to appreciate fully the problem concerned with the treatment of coronary thrombosis, one must bear in mind the possible effects of this condition on the heart. The response in any particular instance depends on several factors, such as the previous state of the coronary circulation, the size of the vessel obstructed and whether the closure is gradual or sudden. These are obviously concerned with the ability of the heart to maintain an adequate blood supply to the myocardium, and if one of the larger vessels is occluded this is possible only through the presence of extensive collateral circulation. It is a well established fact that an effective collateral circulation commonly develops if there is gradual occlusion of an artery. In the normal subject the communications between adjacent vessels are limited, and in most instances by means of tiny vessels. Therefore, the abrupt closure of one of the main coronary arteries early in the course of the disease results in a large area of infarction. If, on the other hand, the obstructive process develops slowly and is not terminated too soon by thrombus, there may be little or perhaps no significant degeneration of the myocardium. Thus in some instances the effect on the heart is so overwhelming that it results in sudden death. There is another large group in which there is a varying amount of demonstrable cardiac damage. A high percentage of these survive the attack and many may live for years. Finally, there is another group, and this is much larger than previously believed, in which the heart is so well protected by collateral circulation that little or no significant damage results, and thus the condition is not recognized. It may have been suspected because of changes in the electrocardiogram, but there is nothing in the history to suggest the occurrence.

Despite a favorable condition during the early course of coronary thrombosis, the outlook is always in doubt. There is the possibility of extension of the infarct, or perhaps the development of a new one. Moreover, if the infarct involves the endocardium to a significant extent, mural thrombi usually develop. These often involve both the left and right ventricles and thus may be dislodged and pass to the lungs or into the greater circulation. It has been estimated that mural thrombi develop in about fifty per cent of the cases, and that embolic manifestations occur in approximately fifteen per cent. The latter more commonly takes place during the first ten days and more frequently involves the lungs. Other structures such as the kidney, spleen, extremities, and the brain are usually involved in the order mentioned.

Occasionally, the area of softening extends through the entire thickness of the wall of the left ventricle and may permit rupture and hemorrhage into the pericardial sac, resulting in death from cardiac compression. The rupture is usually located in either the anterior or posterior wall of the left ventricle. In rare instances the interventricular septum is involved in the above manner from the thrombosis of the anterior descending branch of the left coronary artery. This is accompanied by the appearance of systolic murmur over the precordium, which is most intense in the left parasternal region in the fourth and fifth interspaces and may be high in pitch or even rasping in character.

In those with extensive myocardial damage and as the result of widespread replacement of the muscle by fibrous tissue, the wall of the left ventricle may bulge, producing cardiac aneurysm. This condition is more commonly located on the anterior apical wall of the left ventricle, ordinarily a late development, and is usually associated with cardiac failure.

It is apparent from the foregoing discussion that left ventricular failure may be a conspicuous feature in certain instances during the early course of coronary thrombosis. This is usually manifested by periods of intense dyspnea and, if not com-

* Presented before the second General Meeting of the Indiana State Medical Association at Indianapolis, September 25, 1941.

batted promptly by energetic measures, may result in death.

Premature contractions are common during the first week to ten days. If these are frequent in occurrence, there is the possibility of the onset of ventricular tachycardia. This is a serious complication and, unless abolished, results in cardiac failure or perhaps ventricular fibrillation and death. Occasionally in the more extensively damaged heart auricular fibrillation or even auricular flutter occurs. The auricular fibrillation usually occurs in paroxysms, and it frequently disappears with the restoration of cardiac function. Flutter, on the other hand, is more likely to be refractory to treatment.

It is evident that the early stage, particularly the first ten days to two weeks, is the critical period of coronary thrombosis. Consequently, the protection of the heart in every way possible against the insult to the coronary circulation is of the utmost importance. The effectiveness with which this is accomplished may not only determine the immediate outcome but may have a deciding influence on the subsequent course. Therefore, the patient should be put to bed and maintained at as nearly absolute rest as possible until the period of emergency has passed. Morphine should be given in sufficient amounts to control the pain and induce sleep. Occasionally repeated injections may be necessary, and in the presence of more severe pain intravenous administration may be indicated. More recently the addition of atropine has been advocated in order to combat the possibility of associated spasm of the coronary vessels resulting from over activity of the vagus nerve. With the more severe and lasting pain, other measures, such as oxygen and aminophylline, should be employed. These agents contribute to the control of the pain by increasing the oxygen content and the amount of blood reaching the damaged myocardium. Moreover, one should endeavor to reduce the area of infarction to the minimum. My associates and I have demonstrated that it is possible to accomplish this in the dog with aminophylline. Consequently it has been our practice to institute the use of the drug early in the course of the disease. In some instances it is given intravenously in doses of 0.48 gm. twice daily during the first week. The contents of an ampule are diluted in 20 to 30 cc. glucose solution and introduced very slowly into the vein. If plenty of time is allowed for the injection, there is seldom unfavorable reaction. After the first week, except in certain instances of left ventricular failure which will be discussed later, this method of administration is discontinued and the drug is given by mouth in doses of grs. III, three to four times a day. In those with minimal cardiac damage the oral administration is employed from the onset. If the drug is too irritating to the gastro-intestinal tract, the enteric coated tablets are used.

After the pain has disappeared, unless there is dyspnea, a simple sedative such as phenobarbital, grs. ½ three to four times a day, is usually effective in promoting the desired relaxation and sleep. There are many individuals who would become very tired of the bed unless a sedative of this general nature is prescribed. It is commonly our practice to employ phenobarbital, because of its lasting effects, during the day in sufficient amounts to meet our objective and then, if necessary, a more rapid acting barbiturate at bed time, such as nembutal, gr. ¾.

The diet should be simple in character and one calculated not to promote abdominal distension. In the beginning it may consist of milk, fruit juices, cooked cereals, soft boiled or poached eggs, toast or soda crackers, jellies, puréed vegetables, cooked fruits, mashed or baked potatoes, custards, jello, ice cream, and coffee if desired. The diet may be gradually changed over to a simple general one, as the condition permits. Abdominal distress is ordinarily not a troublesome feature unless the coronary thrombosis is complicated by cardiac failure, or difficulty is encountered in regulating the bowels. The fluid intake is not restricted except in the presence of cardiac failure, and then rarely below 2,000 cc. during the twenty-four hours.

During the first week or ten days in particular it is obvious that the patient should be spared all unnecessary physical effort in the taking of fluids and foods and the movement of the bowels. It is generally possible to regulate the bowels by simple measures, such as the use of mineral oil and perhaps glycerine suppositories. Ordinarily one bowel movement a day is sufficient and two or more not desirable because of the effort incident to the use of the bed pan. Occasionally it may be advisable to employ a small warm water enema.

In many instances this, with the continuation of bed rest and the later management of the patient after he is allowed out of bed, constitutes the treatment. Certain complications, however, may arise. In the presence of frequent premature beats, ventricular tachycardia may occur. The administration of quinidine sulphate grs. III, four to six times a day, affords the best means of eliminating the premature contractions. Ventricular tachycardia is a serious complication and, unless abolished, will ultimately terminate in death. Here again quinidine sulphate is the most effective remedy. However, large amounts are usually required and occasionally intravenous administration is necessary. When given intravenously the quinidine, usually in doses of grs. X to XX, is added to 100 cc. physiological salt solution, distilled water or glucose solution and is injected very slowly. In one instance recently reported,[1] a dose of 40 grs. was required. In this case the ventricular tachycardia lasted twenty-three days, and quinidine in doses of grs. XX had not been effective. It was stated that after the injection of 25 to 30 grs. of the larger dose the subject vomited. At about this time there was a distinct change in

[1] Strong, G. F., and Munroe, D. S.: Paroxysmal Ventricular Tachycardia, with Report of Unusual Case, *Am. Heart J.*, **19**: 486, 1940.

the character of the heart sounds. The patient became unconscious and a violent epileptiform convulsion occurred. The convulsion lasted about one minute; however, a conscious state was not regained for about fifteen minutes. Upon awakening, the subject was at once aware of normal cardiac mechanism. Thereafter quinidine, grs. V, was given by mouth four times a day until the patient was discharged from the hospital. The above instance is cited in order to show that large amounts of quinidine may be necessary and that when it is administered intravenously violent reactions may result.

In another case[2] recently reported, quinidine was given by mouth but was not effective until supplemented by potassium chloride, grs. XV, every four hours. The potassium chloride was prescribed because of its depressing action on the heart and the fact that favorable results had been reported from the use of this drug in the treatment of premature contractions.

Riseman and Linenthal[3] have employed quinine dihydrochloride intramuscularly with success when there was vomiting or reason to believe that there might be poor absorption from the gastro-intestinal tract. The drug was given in doses of grs. X to XV every two or two and one-half hours. In one instance cited the tachycardia was not abolished until the ninth day, and during the preceding forty-eight hours 240 grs. were given.

There seems to be considerable doubt regarding the use of digitalis, and I am inclined to believe that there are many cases in which this drug is unjustifiably withheld. It is indicated where there is cardiac failure. If rapid action is desired, a preparation for intravenous use may be added to the solution containing aminophylline. Thereafter it may be given orally and usually grs. 1½ of powdered leaf three or four times a day is sufficient.

The rapid development of cardiac failure presents another of the more difficult problems in the treatment of coronary thrombosis. This is well illustrated by the following case, which was also of interest from the standpoint of diagnosis.

A man aged fifty years was admitted to the hospital because of dyspnea, cough, and fever. He was so ill at that time that it was not possible to obtain a satisfactory history. Because of the presence of fine moist rales in the base of the right lung and a blood tinged sputum, a tentative diagnosis of pneumonia was made. This was also the roentgenological diagnosis from a film taken of the chest the following morning. However, it was apparent from the first examination that there was cardiac damage. Moreover, the electrocardiogram showed significant alterations, and these changed from day to day. In addition to this there was a decided progression of the cardiac disability during the first thirty-six hours in the hospital, as manifested by the appearance of periods of intense dyspnea, gallop rhythm, frequent premature beats, and finally auricular fibrillation.

The administration of oxygen was instituted and digitalis and aminophylline were prescribed. Morphine was given in sufficient amounts to produce sleep during the night and relaxation during the day. In the beginning aminophylline, 0.48 gm., was administered intravenously during a paroxysm of dyspnea, with dramatic results. Following this it was given in the above amount and manner night and morning, and between times, for the control of the more severe attacks of dyspnea. Digitalis in the form of digifolin was added to the second and third injection, and thereafter the powdered leaf was given by mouth.

This patient recovered and is now doing full-time work as an architect two years after his attack. After he had improved to a point where a reliable history might be obtained, it was found that he was suddenly taken with intense pain in the epigastrium, accompanied by nausea about ten o'clock in the evening three days before admission to the hospital, following a heavy meal of steak and onions. After about one and one-half hours he vomited profusely and had copious watery bowel movements following which the pain disappeared.

The duration of bed rest is determined by the circumstances. A period of four to six weeks is ordinarily advised; however, with extensive heart damage it should be longer, and in some instances it may be advisable to extend it to three months or more. One should feel as certain as possible that the infarct has healed and that the maximum benefit has been derived from bed rest before the patient is allowed to be up and, particularly if he has been in bed for a long period, the legs and feet should be conditioned as much as possible by gentle massage.

The management of the patient after he is allowed out of bed is one of the most important aspects of the treatment. It is essential that the extension of the physical activities be carefully supervised. Thereafter it is a matter of regulating the habits of living so that the individual may live as far as possible within the limits of his cardiac disability. In order to attain this objective the patient must know the means of safe-guarding himself. This necessarily means that he should know something of the nature and dangers of his condition. There is also the matter of mental adjustment. It is well known that many, particularly those in professions or in sedentary occupations, may resume their duties again. However, they should thoroughly appreciate the importance of adopting

[2] Stempien, Stephen J., and Katz, Herman H.: Quinidine and Potassium in Refractory Paroxysmal Ventricular Tachycardia, *Am. Heart J.* (In print).

[3] Riseman, Joseph E. F., and Linenthal, Harry: Paroxysmal Ventricular Tachycardia—Its Favorable Progress in Absence of Acute Cardiac Damage and Its Treatment with Parenterally Administered Quinine Dihydrochloride, *Am. Heart J.*, **22**, 219, 1941.

a slower pace, avoiding over-fatigue, getting plenty of relaxation and sleep, and maintaining a high level of general health.

This educational program may be carried out in easy stages during the period of convalescence. The patient will usually want to know his possibilities for the future. In many instances much of an encouraging nature may be said. At the same time it is possible to discuss many of the more important aspects of the condition without alarming the individual. A long period of convalescence is of great advantage in that it allows plenty of time for the subject to think over the situation and devise means of adjusting his future to his disability. Moreover, it permits many to become thoroughly rested for the first time in years. They again realize the meaning of this feeling and see the folly of needlessly allowing themselves to become overfatigued.

INHIBITION OF CHEMOTHERAPEUTIC ACTION OF SULFAPYRIDINE BY LOCAL ANESTHETICS

H. M. POWELL, Sc.D.,*
M. E. KRAHL, Ph. D.,
G. H. A. CLOWES, Ph.D.
INDIANAPOLIS

Following Woods'[1] observation of the antagonism between *p*-aminobenzoic acid and sulfanilamide on hemolytic streptococci in vitro, Selbie[2] showed that oral administration of *p*-aminobenzoic acid could inhibit the chemotherapeutic effect of sulfanilamide on hemolytic streptococcic infections in mice. Keltch, Baker, Krahl, and Clowes[3] have shown that local anesthetics derived from *p*-aminobenzoic acid exhibit a blocking action against the B. coli bacteriostatic property of sulfapyridine and sulfathiazole, while certain other local anesthetics not derived from *p*-aminobenzoic acid do not have this property. It became of interest to determine the effects of these two classes of local anesthetics upon the well known antipneumococcal chemotherapeutic action of sulfapyridine in white mice. The following is a preliminary report of these tests.

Experiment 1. We used pneumococcus Type I infections in white mice, administering to each mouse, intended to receive therapy, 10^{-4} cc. of a fresh rabbit blood broth culture intraperitoneally. Virulence control mice on decreasing decimal dilutions of culture show this dose is about 10,000 M.L.D., since our experience with routine tests of this type on hundreds of mice shows that untreated mice generally die when injected with as little as 10^{-8} cc. of the same culture. Therapy comprised a series of five oral doses of sulfapyridine. Such a series of 30 mg. doses of sulfapyridine was found by Powell and Chen[4, 5] to bring about the cure of an average of about fifty per cent of mice receiving 10,000 M.L.D. of culture. We have found that the blocking effect of the *p*-aminobenzoic acid type of local anesthetic is exhibited quite well in such groups of mice which are neither under- nor over-treated with sulfapyridine. Table 1 shows a preliminary test using different doses of sulfapyridine with and without beta - diethylaminoethyl - *p* - aminobenzoate ('Novocain') in constant dosage. A demonstrable curative effect of a series of five 30 mg. oral doses of sulfapyridine was suppressed when this treatment was combined with five 1 mg. subcutaneous doses of 'Novocain' given at the same time as the

TABLE 1

CHEMOTHERAPY OF MICE INFECTED INTRAPERITONEALLY WITH 10^{-4} CC. OF TYPE I PNEUMOCOCCI AS INHIBITED BY 'NOVOCAIN'

THERAPY		RESULTS IN GROUPS OF 10 MICE	
Drugs used	*Mg. of drugs per mouse dose*	*Day of death of each mouse or survival 7 days* (S)*	*Average length of life at 7 days*
Sulfapyridine	10	3 3 3 3 3 4 4 4 4 4	3.5
Sulfapyridine and	10		
'Nocovain'	1	3 3 3 3 3 4 4 4 4 4	3.5
Sulfapyridine	20	3 3 3 3 3 4 4 4 4 4	3.5
Sulfapyridine and	20		
'Nocovain'	1	3 3 3 3 3 4 4 4 4 5	3.6
Sulfapyridine	30	3 3 3 4 4 6 S S S S	5.1
Sulfapyridine and	30		
'Nocovain'	1	3 3 3 3 4 4 4 4 5 5	3.8
'Nocovain'	1	1 1 1 1 1 1 1 1 1 1	1.0

Notes:

Sulfapyridine was given orally; 'Novocain' was given subcutaneously. Untreated virulence controls in this experiment resulted as follows: duplicate mice on 10^{-4} to 10^{-8} cc., inclusively, died; while those on 10^{-9} cc. survived. All mouse deaths were due to pneumococcal infections.

* The period of observation originally used by Whitby in his first report on sulfapyridine and pneumococci.

* From the Lilly Research Laboratories, Eli Lilly and Company, Indianapolis.

[1] Woods, D. D.: *Brit. J. Exp. Path.*, **21**: 74, 1940.

[2] Selbie, F. R.: *Brit. J. Exp. Path.*, **21**: 90, 1940.

[3] Keltch, A. K.; Baker, L. A.; Krahl, M. E., and Clowes, G. H. A.: *Proc. Soc. for Exp. Biol. and Med.*, **47**: 533, 1941.

[4] Powell, H. M., and Chen, K. K.: *Jour. Pharm. and Exp. Thera.*, **67**: 79, 1939.

[5] Powell, H. M., and Chen, K. K.: *Jour. Ind. State Med. Assn.*, **33**: 503, 1940.

sulfapyridine. When insufficient sulfapyridine is used to obtain a substantial number of cures, possible inhibitory action of 'Novocain' for sulfapyridine is obviously not revealed.

Experiment 2. A second comparative experiment was conducted with additional local anesthetics, using similar controlled pneumococcus Type I infections as shown in Table 2. Doses of 10^{-4} cc. of culture for mice used for therapy were the same as before. Duplicate untreated virulence control mice on each of the five decimal dilutions of culture from 10^{-4} to 10^{-8} cc., inclusive, died, while only the two mice on 10^{-9} cc. lived, indicating the infecting culture was fully virulent. It is observed that the therapeutic effectiveness of sulfapyridine is impaired by concurrent treatment with *p*-aminobenzoic acid and its derivatives as used in Therapy Nos. 2, 3, and 4, but not by non-*p*-aminobenzoic acid derivatives as used in Therapy Nos. 5 and 6. In the same experiment gamma-dimethylamino-alpha, beta - dimethylpropyl-*p*-aminobenzoate was employed, but was not well solubilized and exerted but slight chemotherapeutic inhibition; also 2-butyloxyquinoline carboxylic acid-4-diethylethylenediamide proved primarily toxic in a 1 mg. dose series; and neither of these anesthetics is included in the above list.

TABLE 2

CHEMOTHERAPY OF MICE INFECTED INTRAPERITONEALLY WITH 10^{-4} CC. OF TYPE I PNEUMOCOCCI AS INHIBITED BY DIFFERENT LOCAL ANESTHETICS

THERAPY	RESULTS IN GROUPS OF 10 MICE	
	Day of death of each mouse or survival seven days (S)	*Average length of life at 7 days*
No. 1	4 5 5 S S S S S S S	6.3
No. 2	3 3 4 4 4 5 5 5 S S	4.7
No. 3	3 3 4 4 4 4 5 5 5 S	4.4
No. 4	3 4 4 4 5 5 5 S S S	5.1
No. 5	4 S S S S S S S S S	6.7
No. 6	4 5 S S S S S S S S	6.5

No. 1—Sulfapyridine (30 mg. x 5 doses).
No. 2—Therapy No. 1 plus p-aminobenzoic acid (1 x 5).
No. 3—Therapy No. 1 plus gamma-diethylamino-beta, beta-dimethylpropyl-p-aminobenzoate (1 x 5).
No. 4—Therapy No. 1 plus beta-diethylaminoethyl-p-aminobenzoate (1 x 5).
No. 5—Therapy No. 1 plus gamma-(2-methyl-piperidino)-propylbenzoate (1 x 5).
No. 6—Therapy No. 1 plus gamma-diethylaminopropyl cinnamate (1 x 5).

Experiment 3. A third experiment has been conducted in much the same manner as the second. Infecting dose of pneumococci for mice to be treated was 10^{-4} cc. Duplicate nontreated control mice on doses of each of the four decimal dilutions of culture of 10^{-4} to 10^{-7}, inclusive, one of two mice on 10^{-8} cc., and neither of two mice on 10^{-9} cc. died. Local anesthetic dosage was 2 mg. per mouse administered five times, as shown in Table 3. The gamma - diethylamino - beta, beta-dimethylpropyl-*p*-aminobenzoate treatment in Therapy 4 appeared somewhat toxic since the mice were partly anesthetized. Two-benzoxy-2-dimethylaminomethyl-1-dimethylaminobutane was included in the experiment, but is not shown in Table 3 since it proved primarily toxic to the pneumococcus infected mice. All of ten mice on 2 mg. doses died on the first day, too soon to assay the effect of this drug on the sulfapyridine action. The results obtained in this experiment are similar to those of the two previous experiments, and show an impairment of chemotherapeutic effectiveness of sulfapyridine only by the *p*-aminobenzoic acid type of local anesthetics as used in Therapy Nos. 3, 4, and 5.

TABLE 3

CHEMOTHERAPY OF MICE INFECTED INTRAPERITONEALLY WITH 10^{-4} CC. OF TYPE I PNEUMOCOCCI AS INHIBITED BY LARGER DOSES OF DIFFERENT LOCAL ANESTHETICS

THERAPY	RESULTS IN GROUPS OF 10 MICE	
	Day of death of each mouse or survival seven days (S)	*Average length of life at 7 days*
No. 1	3 3 4 S S S S S S S	5.9
No. 2	2 3 3 3 3 4 4 4 4 5	3.5
No. 3	3 3 3 3 4 4 4 4 S S	4.2
No. 4	1 1 2 2 3 4 5 5 S S	3.7
No. 5	3 3 3 4 4 4 5 5 S S	4.5
No. 6	2 3 S S S S S S S S	6.1
No. 7	3 3 4 5 S S S S S S	5.7

No. 1—Sulfapyridine (30 mg. x 5 doses).
No. 2—Therapy No. 1 plus p-aminobenzoic acid (2 x 5).
No. 3—Therapy No. 1 plus gamma-dimethylamino-alpha, beta-dimethylpropyl-p-aminobenzoate (2 x 5).
No. 4—Therapy No. 1 plus gamma-diethylamino-beta, beta-dimethylpropyl-p-aminobenzoate (2 x 5).
No. 5—Therapy No. 1 plus beta-diethylaminoethyl-p-aminobenzoate (2 x 5).
No. 6—Therapy No. 1 plus gamma-(2-methyl-piperidino)-propylbenzoate (2 x 5).
No. 7—Therapy No. 1 plus gamma-diethylaminopropyl cinnamate (2 x 5).

Summary: A demonstrable inhibition of pneumococcal chemotherapeutic action of sulfapyridine has been obtained by certain local anesthetics derived from *p*-aminobenzoic acid, but not by certain other local anesthetics not derived from *p*-aminobenzoic acid.

ABSTRACT: DOGS AND TULAREMIA

Evidence that dogs may be susceptible to infection with tularemia is presented in *The Journal of the American Medical Association* for December 13 by L. F. Ey and R. E. Daniels, Columbus, Ohio., who report an instance in which they found the disease occurring in 3 dogs and their master. The dogs recovered, whereas the owner died. Heretofore it had been considered by many that dogs possessed a natural immunity to the disease.

The owner of the 3 dogs went hunting with them on Nov. 6, 1940. The dogs ran down a rabbit which they killed and the master divided it into three pieces, giving one to each dog. The following day the youngest dog became ill and the other 2 dogs became ill a day or two later. On November 9 the owner of the dogs became quite ill with chills and fever and on November 11 he was hospitalized. Although he received antitularense serum treatment the owner of the animals died on November 16. Blood specimens from each of the 3 dogs were positive for the tularemia organism.

ORGANIZATION OF THERAPY IN THE TREATMENT OF ARTHRITICS*

RALPH PEMBERTON, M.D.†
PHILADELPHIA, PENNSYLVANIA

There is need for standardization of treatment of arthritics in general. Out of the concept, which long dominated the scene, that focal infection or infection of some kind constituted the factor requiring the greatest attention, arose a number of therapeutic corollaries, such as routine removal of focal infection, use of vaccines, injection of nonspecific protein, etc. The medical profession has thus for some time been neglectful in considering other spheres of influence, previously more appreciated, such as heredity, constitutional make-up, environment, climate, nutrition, occupation, etc. With the decline of the theory of infection as the only significant cause of arthritic diseases, many physicians were of the opinion that little basis remained for sound therapeutic dictum.

In fact, however, the air is now cleared for consideration of a wealth of factors previously more or less ignored. One of the considerations making an approach of broad-gauged and generic nature more easily possible is a growing awakening to the long recognized truth that arthritis is a disease of the mesodermal tissues. The conspicuous lesions in the joints dominated the picture so long, actually as well as metaphorically, that little attention has been given to disturbances of physiology in other tissues. To consider the joints only is merely a consideration of the surface outcrop of the disease, and any approach to the problem as a whole must be of a basic rather than a symptomatic nature. Many cases which can be categoried under the caption of arthritis present little or no evidence of arthritis *per se* but present manifestations chiefly in the tendinous, capsular, muscular, peripheral nervous, central nervous, or other systems of the body. Reference to the tissues deriving from the mesenchyme, a product of the mesoderm, shows that one of the most conspicuous manifestations is the hematopoietic system as a whole. In the presence of congenital or other inadequacies of the mesoderm or mesenchyme, it is fair to assume that the hematopoietic system might be expected to be influenced and that this influence might take the expression of an anemia often encountered in arthritis and usually thought to be "secondary." In this connection it is to be noted that much of the activity of the atrophic or rheumatoid process *per se* takes place in the connective tissue of the marrow spaces of the bones involved, giving rise to a vascular granulation tissue. Analogy in the same general direction could probably be stretched to include peripheral changes in the vascular system, especially in the capillary beds, but it obviously would be possible, on the basis of the slight evidence at our command, to stretch the cloak so far as to reveal rather than cover our ignorance.

Other major systems of the body enter into the picture to a very significant and often a very graphic extent. Thus, the nervous system is regarded as being involved in the disease and many instances of arthritis result abruptly from worry, grief, or strain of any kind. By the same token the gastro-intestinal system is often the subject of imbalance.

Again, and somewhat analogously, rapid developments in the field of nutrition have increasingly directed attention to the significance of partial avitaminoses in rheumatic disorders. While it cannot be stated at present that any of these disorders are true avitaminoses, there is general agreement that the comparative rarity of gross deficiency disease among arthritics is not a valid argument that deficiencies at apparently physiologic levels do not exist. Deviations of the gastro-intestinal tract encountered among arthritics clearly suggest that there may be not only undue permeability of the gut but also inadequate absorption of essential foodstuffs.

Considering further imbalance of the great systems of the body, there is evidence to suggest that the true nature of arthritis must, perhaps, be sought in activity of the so-called master tissues of the body, namely, the pituitary, in its expression, directly or indirectly, through the endocrine chain upon growth, equilibrium in the finer vascular beds, water metabolism, the menstrual and reproductive cycle and the like. The exacerbations of arthritis encountered during menstruation and the remissions of the disease during pregnancy are well recognized. Attention should also be directed to the low-grade tissue edema which characterizes many arthritics of both great types. To some degree, therefore, the major systems of the body must be regarded as involved in the problem of the arthritides as a whole, varying in the extent of involvement with the type of arthritis and the particular factors in any given case.

Therapeutically considered, arthritics as a group can be approached efficiently by considering not so much a stereotyped disease as a collection of dislocations of the various systems of the body, which dislocations can be largely reduced and to a great extent again brought into balance. Some-

* Published in lieu of the talk on "Arthritis" given before the first General Meeting at the ninety-second annual session of the Indiana State Medical Association on September 24, 1941.

† Professor of Medicine, Graduate School of Medicine, University of Pennsylvania; President, Ligue Internationale contre le Rhumatisme.

thing in the nature of an equilibrium must be achieved in the major systems of the body in the majority of seriously ill arthritics if expectation of recovery is to be entertained.

Therefore, the first recommendation which should be made in the direction of care of any large group of arthritics, such as the present national emergency might lead to, is rest, not only local but systemic. It must be understood, however, that rest is a complicated measure, or mosaic, which involves much more than idleness, and that it has in it elements of danger as well as benefit. It would be better, perhaps, if recommendations could be made for each of those things which rest brings about rather than to order rest as a blanket prescription. Very often sedation is required, not only because it facilitates full operation of the principles of rest but also because it may be necessary in order to secure the individual's consent to undergo physical rest. Rest does not constitute a panacea for the arthritides but it does afford a foundation upon which to build and sometimes accomplishes apparent miracles. This is best exemplified by the low-grade tissue edema which characterizes many arthritics of both great types. The precise nature of this edema is not entirely clear, but it is amenable to several influencing factors. The supine position promotes the passage of blood from the tissues into the vascular channels.

Tissue edema is also influenced by purgation, but this has disadvantages although it is practiced extensively in some spas. The edema is probably open to influence by curtailment of salt, although this also brings about obvious disadvantages. Massage induces a definite diuresis in a considerable proportion of cases and, therefore, has limited value. Edema may also be influenced by the kind of food ingested. Storage of carbohydrate, in the form of glycogen or otherwise, induces storage of water. For each gram of carbohydrate stored, three or four grams of water also are retained. In contrast to this, protein is rarely stored except following conditions of great wasting, such as typhoid fever, and many products of protein breakdown require water for their elimination. In the metabolism of fat only about one-tenth of a gram of water is retained for every gram of fat stored. A dietary can, therefore, be drawn up which may make away from rather than toward tissue edema, and in the practical treatment of arthritics this is sometimes a measure of considerable importance. It can be carried out without detriment to the patient, and the quota of calories may be as liberal as desired.

A diet of adequate caloric value, so balanced as to be high in protein, reasonably supplied with fats and low in concentrated carbohydrate foodstuffs, also permits of better utilization of vitamins and more nearly approaches the optimal type of diet often used in experimental animals. As already indicated, undue permeability of the gut may conceivably exist and inadequate absorption may equally obtain. Accessory vitamins should, therefore, be supplied in addition to green vegetables, fruits, milk, butter, etc., and in many arthritics, as is well known, there is a hypo- or achlorhydria for which replacement hydrochloric therapy is indicated. The food also should be controlled as to the roughage content; lubrication is often necessary; and a broad clinical perspective must be maintained of the function of the gastrointestinal tract as a whole.

Regarding physiological rest as a platform and not as a superstructure, attention should be directed to the influence of focal infection. The present iconoclasticism regarding it is not to be accepted too literally. Great injustice may be done to arthritics and hosts of other sufferers by minimizing the significance of this field. Furthermore, it may be stated that examination for focal infection stops short of full adequacy more often than is generally realized.

Transfusion of blood in cases of marked or sustained anemia is also a useful adjunct. Physical therapy plays a very important accessory role. However, even in well reputed spas emphasis upon this measure may be unduly great and in many instances Pelion has been piled on Ossa, with the result that faulty and painful joints have been injured by what was, in fact, further trauma.

Stimulation and sedation in the chronic arthritic present problems which are not adequately appreciated by most practitioners. Mild sedation in the form of sodium bromide or phenobarbital may be necessary in order to permit the nervous system and even the psyche of the individual to relax sufficiently for him to be willing to enter upon a period of rest. When the conditioning circumstances of rest, optimal nutrition, etc., are brought into balance, significant effects of a sedative, in what would otherwise be a trifling dose, may be obtained. The use of small doses of nux vomica, such as three drops two or three times a day, may achieve most gratifying effects in respect to a sense of energy, a greater interest in the objective of convalescence, greater willingness and, indeed, ability to work toward it, probably the shortening of some important synapses, the heightening of appetite and the like.

Endocrine therapy is developing rapidly and has definite though limited application to selected arthritics of menopausal age.

Because of limitation of space it is possible to give only a titular survey of the field of the arthritides, with the aim of indicating that routine therapy can be systematized and coordinated in such a way as to provide a foundation upon which various superstructures will rest with greater stability.

It is impossible at present to postulate any known factor or tissue, or any one relationship between tissues, as the underlying cause of arthritis and, by the same token, it is equally impossible

to administer a single specific therapy. In view of this situation and in view of the fact that at least much can be achieved by bringing discordant influences into line, it is difficult to understand why serious attempts are not made more extensively to provide for each arthritic that optimal balance of the component structures and systems of the body which alone is often adequate to initiate convalescence. Many, perhaps most, students of the subject entertain something of an unidirectional outlook and, therefore, have had little interest and even less experience in the systemic approach here discussed. Full value thereof can, perhaps, be appreciated only when experience has been actually obtained in coordinating the several steps above discussed, or when the results of such therapy have been viewed and studied in detail over a period of months or years.

By way of summary it may be said that the following steps should, in the opinion of the writer and his associates, underlie any large-scale attempt at the treatment of arthritics as a group.

1. Rest, systemic as well as local.
2. Sedation and/or stimulation.
3. Optimal nutrition in the refined sense discussed earlier.
4. Proper gastro-intestinal function.
5. Examination of the blood and body chemistry.
6. Time for establishment of a general equilibrium.
7. Examination for foci of infection.
8. Medication, such as iron, arsenic, nux, etc.
9. Conservative treatment of foci.
10. Conservative use of physical therapy—chiefly heat, gentle massage, and postural exercise.
11. Orthopedic help.
12. Endocrine therapy in selected cases.
13. Psychic re-education.
14. Last, if at all, vaccines, gold, etc.

It is not to be supposed that each component of this sequence needs equal stress or even that they should all, at all times, be brought to bear. It is, furthermore, axiomatic that the last-named adjuvant measures in the treatment of arthritis, such as the use of gold or vaccines, may need large and earlier emphasis at times. Only when Nature, however, has finally refused to complete her job under proper conditions of physiological splinting and stimulation should it be justifiable to impose upon her another burden, such as that of the heavy metals, the exaction of further antigenic responses and the like.

CONCLUSION

In conclusion, the writer would like to stress again that it is truly remarkable to observe the extent to which many cases of arthritis respond, sometimes almost immediately, to the principle of the physiologic approach. Perhaps no other disease syndrome so well illustrates the extraordinarily recuperative power of the human organism. Some cases of arthritis originally have been plunged into an abyss of hopeless invalidism almost over night. Most cases, however, arise more insidiously and require a relatively long period before full development of the disease takes place. Even in advanced cases the extent of invalidism may be a function of great chronicity rather than of extreme activity of the process *per se*. In any event, the clinician who initiates treatment of the seriously ill arthritic by making further demands upon him through surgery, the administration of heavy toxic metals or any other drastic measure, usually displays unfamiliarity with the nature of the problem and has something to learn regarding the physiologic bases of the disease.

ABSTRACT

PRAISES WORK OF NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

In an editorial discussing the Kenny method of treatment of the acute stages of infantile paralysis, which was granted recognition two weeks ago at a scientific meeting of the National Foundation for Infantile Paralysis, held in New York, *The Journal of the American Medical Association* for December 20 pays tribute to the Foundation. It says that "the American people and the medical profession are fortunate in having an organization like that of the National Foundation for Infantile Paralysis capable of supporting controlled studies on every aspect of this serious disease and willing, through its board of trustees, to recognize the importance of consulting authoritative scientific information not only in the selection of projects for research but also in extending the results of such research to the patients who need them most."

In reference to the application of the Kenny method, *The Journal* admonishes that: "It would, of course, be unfortunate if there should be any attempt to treat patients with infantile paralysis routinely without recognition of the fact that both the severity of the infection and the extent of the paralysis differ in each instance of the disease."

The editorial explains that *The Journal* "has already pointed out that adoption of the Kenny technic represents an elaboration of well recognized principles in the treatment of acute paralysis and also the basis in scientific research on the physiology of the nervous system which explains the value of the technic as practiced. If there is any revolutionary element in the Kenny technic, it consists in its abandonment of early rigid splinting and the adoption of continuous and meticulous hydrotherapy and physical therapy to maintain the function of muscles which still have nerve supply at the highest possible point, at the same time producing increased comfort for the patient. No doubt the period which will elapse before the coming of infantile paralysis next year will give opportunity to those persons in the medical profession most concerned to prepare themselves to meet the situation with all the new knowledge that the research supported by the National Foundation for Infantile Paralysis has yielded."

REPORT OF A CASE OF EMBRYONIC CARCINOMA (SEMINOMA) OF THE SPERMATIC CORD

A. V. COLE, M.D.
E. A. CAMPAGNA, M.D.
EAST CHICAGO, INDIANA

A review of the literature on spermatic cord tumors was found in an article written in 1936 by Gershon J. Thompson, of Rochester, Minnesota. In his article he reported forty-one new cases and reviewed the literature of a number of cases reported by other investigators.

According to Thompson, Cloquet, in 1819, reported a lipoma of the spermatic cord, the earliest one known. In Patel and Chalier's review of the literature they found one hundred and ten cases as follows: lipomas 37, sarcomas 22, mixed tumors 33, fibromas 12, myomas 5, and carcinomas 1.

Rubaschow's review of the literature, in 1936, reported the following additional cases: teratoma 1, dermoids 13, mesodermal tumors (myxolipomas, myxofibromas, myxofibrosarcomas, etc.) 27, connective tissue cysts 8, lymphangiomas 4, and six of undecided origin.

MacKenzie discussed fourteen additional cases in one of his articles in 1932. His article did not include cases reported by Fritzler; three cases of lipoma and one of sarcoma by Starlinger in 1925; myxolipoma by Romota in 1927; three cases (fibrosarcoma, myxolipoma and one malignant tumor of connective tissue origin) by Ssinelscikowa in 1929; and rhabdomyosarcoma by Allende and Gonzlez in 1930. Since MacKenzie published his paper, other cases have been described. Monserrat and Galvez, in 1932, reported a case of fibroblastic sarcoma of the cord; an angioma was reported by Deutsch, in 1933; a fibroma by Cliento, in 1932; a lipofibrosarcoma by Odena and a rhabdomyosarcoma by Leriche. All these mentioned here, along with those reviewed by MacKenzie, bring the total up to two hundred and sixteen tumors of the spermatic cord that have been reported thus far.

We see from reports that most malignant tumors are sarcomatous in type. Three cases of carcinoma and one case of teratoma have been reported thus far.

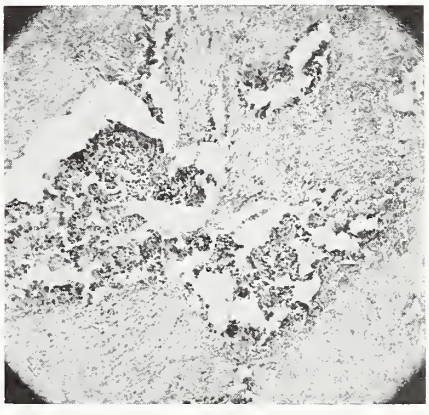
CASE REPORT:

Present Complaint: Pain in right inguinal region. Tumor in right inguinal region. Duration, two months.

Onset: Patient gives a history of having only one testicle as far back as he can remember. Mother informs us that he was born with only the left testicle. He never had any trouble until about two months ago when he noticed a mass forming in the right inguinal region. It remained the same in size, not appearing to be getting any smaller or larger during this period of time. There was some pain present in this area when patient would undergo strenuous exercise, such as swimming, playing baseball, etc.

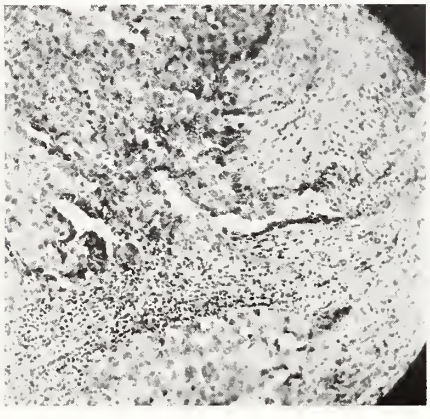
Past History: Mother—living and well.
Four brothers—living and well.
Father—died of carcinoma of the stomach.
No other prevalent diseases in the family.
Venereal disease—denied.

Physical Examination: Inspection reveals a fifteen year old white boy, well developed and well nourished, not acutely ill, with a small mass (the size of a small apple) in the right inguinal region. Temperature 97.8. Pulse 74. Respiration 20. Blood Pressure 132/78. Head: Scalp negative for scars, contusions or alopecia. Eyes: Pupils react to light and accommodation, no conjunctivitis, no nystagmus, and cornea clear. Nose: Septum negative, no deviation, turbinates congested, and no epistaxis. Ears: External negative, tympanic membrane negative, no discharge, and no perforations. Mouth: Teeth in good condition, hygiene good, and pharynx negative. Tonsils enlarged but not inflamed. Neck: No palpable thyroid, no adenopathy, and no rigidity. Chest: Symmetrical, normal in excursion and expansion. Lungs: Tactile fremitus equal on both sides, percussion resonant throughout. Auscultation: Normal breath sounds, no rales, no friction rubs, apices clear. Heart: no enlargement; rate regular, rhythm normal, no murmurs audible. Abdomen: Scaphoid in shape. Right lower quadrant (inguinal re-



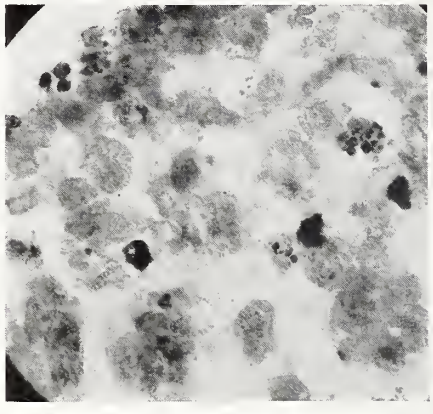
Microscopic Section No. 1

gion): A small mass, the size of an apple, is present in this area. It feels smooth, and hard, is not reducible, and is practically immovable. It is tender to pressure. There is no rigidity over this area. Liver, kidney and spleen not palpable. No distension. Genitalia: Scrotum—only one testicle present on the left side. Extremities: Essentially negative. Reflexes: Physiologically negative.



Microscopic Section No. 2

Surgical Record: Patient entered the hospital on November fourth. He had the usual routine laboratory work and findings were normal. Operation was performed under general anesthesia, revealing a right undescended testicle which was smooth and firm. Lying along and accompanying the spermatic cord were found several friable, pinkish, cyst-like tumors which were removed and sent to the laboratory for biopsy. Testes were replaced in the scrotum. The wound was sutured in the usual way. No complications developed. X-rays of the chest were negative. Ascheim-Zondek test was negative. Biopsy report was as follows: Macroscopically, several nodular portions of pink tissue.



Microscopic Section No. 3

Diagnosis: Embryonic carcinoma (seminoma).

Conclusion: There has always been a controversy as to the exact type of these tumors. Photographs of sections, under the three powers of the microscope, are submitted so that one may form his own opinion as to the type of the tumor.

ABSTRACT: PHYSICIANS' RESPONSE TO CALL TO ENROLL FOR WAR SERVICE IS GRATIFYING

"Last week *The Journal* published an urgent request to all physicians of the United States to fill out the questionnaire published in that issue and mail it at once to Dr. Sam F. Seeley, Executive Officer of the Procurement and Assignment Service, Washington, D. C., indicating their availability to serve the nation in the present emergency," *The Journal of the American Medical Association* for January 10 says. "The response to this call to the medical profession to date has been highly gratifying. The following statement to that effect, with additional instructions, has been received from the Directing Board of the Procurement and Assignment Service:

"'The response of the physicians of the country to the Procurement and Assignment Service request for enrolment of those now ready for immediate service in the Army or the Navy is highly gratifying. All names are being processed, and those who meet the present demands of the Surgeon Generals will receive application forms and authority to appear for physical examination at an early date. All who are now ready for immediate duty should forward applications to the Procurement and Assignment Service at once. It is not the intention of the Procurement and Assignment Service to register every physician, dentist and veterinarian at the present time. Only those available for immediate assignments should register at this time. The physical requirements of all military, governmental, industrial and civil agencies will be published in national and state journals immediately. On the basis of this information every physician, dentist and veterinarian will be able to make a self appraisal of his physical qualifications. Within a few weeks the Procurement and Assignment Service will mail to all individuals a form on which they will be asked to state their preferences for assignment to all agencies of national defense which require medical, dental and veterinary personnel and for service in communities in public health and other civil categories. In this way every physician, dentist and veterinarian of the country will be able to lend maximum support to the national emergency. In order to meet the expanding needs of the military services, every physician immediately available for duty should mail his application blank to the Procurement and Assignment Service at once. All others will be given an opportunity to volunteer in the near future.

Frank H. Lahey, M.D.,
Chairman.
James E. Paullin, M.D.
Harvey B. Stone, M.D.
Harold S. Diehl, M.D.
C. Willard Camalier, D.D.S.
Sam F. Seeley, Major, M. C., U. S. Army, Executive Officer.'"

FACTS AND FALLACIES CONCERNING MODERN ANESTHESIA*

PAUL M. WOOD, M.D.
NEW YORK CITY

In this presentation an attempt will be made to establish a reasonable, common-sense attitude and interpretation of some controversial points in modern anesthesia. These, in order of their discussion, are facts and fallacies concerning:

1. The words anesthesia, anesthesiology and pneumatology.
2. Definition and function of an anesthetist and an anesthesiologist.
3. The variable results of routine orders.
4. Condemnation of a drug or technique.
5. Avertin, describing one suitable technique for rectal anesthesia.
6. Hazards of modern inhalation anesthesia.

Oliver Wendell Holmes is said to have coined the word "anesthesia." It is true that he suggested this term to Morton, but the word is of Greek origin in its current form and meaning. It has been used for hundreds of years, as specific instances indicate. It was found in Plato's "Timaeus"; and later, in Dioscorides. In 1718, Quistorpius wrote under the title "De Anaesthesia." In Bailey's Dictionary, 1721, this quotation appears: "Anaisthesia, a loss or Defect of Sense, as in such as have the Palsy or are blasted." It was used in Marharr's article in 1777 and again in Elliotson's pamphlet on "Mesmerism" in 1843.

"Anesthesiology" was suggested by an Illinois University professor in 1902 and was in use in 1903 as a book title. Etymologically it is correct and it means "The study of anesthesia in all its forms and all that pertains to it."

"Pneumatology" has been proposed as a name for this medical field but could be accepted only for inhalation anesthesia or therapy. Its extension to include intravenous, rectal, spinal, or regional anesthesia, and many forms of resuscitation, is obviously fallacious.

The practice of anesthesia is a part of the practice of medicine. This is shown by the attitude of the American College of Surgeons, the Advisory Board for Medical Specialties, and the American Medical Association in the establishment of a Section on Anesthesiology in the American Medical Association and in several of its component state medical societies. It is also indicated in the establishment of a separate major specialty board—The American Board of Anesthesiology, Inc. It is a fallacy to believe that, since this beneficent practice was devised by and properly belongs to the medical profession, the technical aspect of its use is, therefore, limited to those who hold the degree of Doctor of Medicine. It is a fact that the technical administration of an anesthetic may be carried out well by a dexterous individual with fair faculties of observation and ability to follow instruction. It is true that the technical anesthetist is not usually equipped with the knowledge or facilities for the administration of anesthesias requiring extensive specific knowledge of chemistry, physiology, pharmacology, pathology, diagnosis, and general treatment. It is also a fallacy to consider the anesthesiologist as a technician only. The technical aspect is of importance both to the surgeon and the patient but is of much less importance than an adequate knowledge of diagnosis, selection of the proper drug, determination of an adequate technique, choice of preliminary medication, technical administration, and watchful, prompt and reliable after-care. The duties of the technical anesthetist begin with the placing of the mask on the patient's face and end with its removal, for the greater number of anesthetists practice inhalation anesthesia only. The anesthesiologist, on the other hand, is responsible for the patient from the time he is aware that the patient needs medical or surgical attention until such a condition has been satisfactorily terminated. Many technicians become proficient in more ways than merely the technique, and it is, unfortunately, true that occasionally anesthesiologists drift into a routine whereby they gradually become mere technicians.

In addition, it is a fact that in most states any licensed physician who desires to practice anesthesia only is required to register with the State Department of Education as practicing medicine. It is, therefore, erroneous to conclude that others may not also practice anesthesia. The restriction comes in the various State Medical Practice Acts. In one state the Veterinarian Practice Act specifically states that only a veterinarian or Doctor of Medicine (even the Doctor of Dentistry is excluded) may administer an anesthetic to an animal, but it is common knowledge that there is no restriction as to who may administer anesthetics to human beings! It is a fact that the practice of medicine is said to be limited to those holding the degree of Doctor of Medicine. Until we have in the United States a sufficient number of persons holding such a degree, trained in the art and science of anesthesiology, it is fallacious reasoning to demand that the law be enforced. The situation can not be solved by legal restraint but by increasing the educational facilities for training in the specialty of anesthesiology, so that

* Presented before the Section on Anesthesia of the Indiana State Medical Association at Indianapolis, September 24, 1941.

all physicians may have proper knowledge of this branch of medicine. Every physician who is interested in anesthesia should seek among medical students and interns to find those individuals who seem best suited for this type of practice and should urge them to consider entering this growing field. A technician must follow orders, but an anesthesiologist is qualified to give his own orders.

Variations in the results obtained by medication administered routinely have been noted and do exist. It is poor reasoning to assume that the drug room has supplied a weaker solution or that the drug is at fault when a careful review of the various factors might reveal the cause. A few years ago, in New York City, Dr. Henry Furniss conducted a series of experiments in which ten students and ten graduate nurses were requested to mix and deliver a sixth of a grain of morphine in accordance with laboratory control conditions. Morphine was supplied in tablet form. The materials used were carefully weighed, and an analysis of the results indicated that because of the retention of solution within the bore of the needle and that which adhered to the glass of the syringe at least 8% of the dose could not be administered. In eliminating air bubbles additional material was lost. Careless attachment of the needle to the syringe or faulty equipment accounted for an additional 4%, and 5% remained in the original container, making the maximum that anyone was able to give in this series of experiments only 83% of the amount ordered. The average for the group indicated that approximately 67% of the dose ordered was actually injected into the patient's tissues. Thus, if the administrator is dexterous and has good equipment he may give the maximum dose, and anything less than this may be given subsequently, which may account to some extent for the variations in the condition of a patient arriving in the anesthetizing room. With the skill and knowledge of the anesthesiologist, these variations may be compensated and a smooth anesthesia produced. Without a full understanding of the many causes of such variations, valuable agents or techniques may be discarded.

The Chinese proverb, "fool me once, your fault; fool me twice, my fault," seems to have been taken literally by a too large majority of medical men. If an agent or technique which is new to the user does not produce the result anticipated, the agent or method used is very apt to be condemned and discontinued. The fault here lies in the incorrect assumption that different persons are equally skilled, whereas failure to observe and follow minutely every detail of the technique may be the real reason for unsatisfactory results. The anesthetist often meekly assents to the diagnosis that the patient expired because of some drug or technique. The anesthesiologist, with his training in the basic sciences, is often able to refute such an incorrect diagnosis and to assist in securing for the medical profession a factual picture of the cause of the disaster.

A specific case is the report of a fatality in which a complete autopsy was obtained following the demand of the anesthesiologist. The patient, a male, sixty-seven years of age, suffered from gangrene of the foot, for which amputation at the mid-thigh, under inhalation anesthesia with preliminary medication of avertin (tribromethanol in amylene hydrate) had been ordered. The patient had received a seventy milligram dose of avertin mixture and was taken to the anesthetizing room where a tourniquet was being applied as the nitrous oxide inhaler was adjusted. After one or two inhalations, the patient's pulse and respiration ceased. The surgical department, orderlies, and nurses immediately assumed that the patient had expired from an overdose of avertin. Autopsy revealed a thrombus with one ragged end in the popliteal vessels which exactly fitted into the ragged end of an embolus in a chamber of the heart. Macroscopic inspection of a cross section of the brain and lung indicated numerous minute clots, or emboli. These had probably been thrown out by the action of placing the tourniquet on the leg. If that institution had had the service of an anesthetist instead of a qualified anesthesiologist, this death might have been classified as being caused by the avertin, the case might not have gone to autopsy, and succeeding patients might have been deprived of the benefits of a useful drug for premedication.

It is true that avertin can be used as an anesthetic. However, it is now generally known that it should be used only for preliminary medication as a basal anesthetic agent. Avertin is a potent drug and has definite toxic effects which have been demonstrated sufficiently to warn any and all anesthetists against its indiscriminate use. Morphine itself is a potent and dangerous drug if not properly administered. It is just as much of a fallacy to believe that avertin should never be used because bad effects may occur as it is to believe that no one should ever learn to swim because some people drown. It is also unfortunate, though true, that many are persuaded to adopt techniques, dosages, and even drugs for experimental use on the recommendation of those whose knowledge is inadequate. A company manufacturing a drug attempts to provide as many safeguards as possible, but clinical experience proves that many of the so-called safeguards are based on improper information or reasoning. For instance, the use of avertin has been recommended on a fixed basis of 60, 70 or 80 milligrams per kilo of body weight, using body weight alone as the gauge. This procedure may be satisfactory in the early study of a new drug when various factors must be determined. It is improper to believe that a standard dose based on any one factor should be given all patients of any group. A kit

for the administration of avertin has been devised and previously presented, which illustrates this premise.

The avertin kit consists of a partitioned carrying case. On the left section, as it opens, is a holder for the Congo Red test solution and a special chemical-type thermometer with one reading at 40° C. which obviates error in adjusting temperature. A test tube calibrated in tenths of a cubic centimeter is included. The body or right half of the kit contains vaseline, a cork, space for an extra catheter below, and space for a stock avertin fluid bottle, 100 cc. size, above. At the extreme right is a compartment containing a heat-resistant, calibrated, cork-stoppered, mixing and delivery flask, with glass nipple and rubber catheter attached. The calibrations are in the decimal system to facilitate adjustment. Body weight is expressed in pounds. The scale of dosage was devised by charting 2800 clinical cases. It agrees exactly with individually calculated dosage in 95% of the cases, the maximum variation being .1 cc. in the remaining 5%. It was devised to cover factors of weight, age, metabolism, sthenicity and blood pressure. Careful attention to original instructions will make a safer, more simplified preparation, with more uniform results obtained in less time than can be accomplished in most techniques.

Avertin fluid is viscous and adheres to the test tube. When emptying the measured quantity into the mixing flask there will be a solid stream of fluid until it gradually slackens into individual drops. After counting ten drops the tube should be replaced in the case. After two minutes there will be .2 cc. of avertin fluid at the bottom of the test tube. In preparing a dose this must be adjusted by adding .2 cc. more than is indicated on the flask scale. It is true that .2 cc. might make little or no difference in an individual case, but if the total required was only 1.2 cc. there would be 16% error. Careless technique, to which most of the failures in the clinical administration of anesthesia should be attributed and not to an unreliable agent, makes the difference.

Anesthesia is a hazardous specialty. Clinical anesthesia is accomplished by the careful technical administration of potent toxic drugs. In most inhalation anesthesias there is the additional risk of flammability. There is the hazard of solution-of-continuity of vital processes due to: (1) obstructed airway, (2) overdose of an agent, (3) unwise choice of agent, (4) poor technical administration, and (5), least common but most dramatic, the fire and explosion hazard, which will be discussed briefly.

Recently the American Society of Anesthetists proposed a revision of the color system in general use by anesthetic gas manufacturing companies throughout the United States. The general adoption of this proposal is commendable. Much argument was used in an attempt to block adoption of this added safeguard. Several objections were raised—cylinders might not have been recently returned and old colors might persist, but the most unique objection was that some anesthetists might be color-blind and thus confusion would result. Another objection was that the cost of painting the cylinders would be prohibitive. Demonstration of stock cylinders indicated that they had been repainted, and that similar colors were used by all companies. Previously, Company A distributed oxygen in cylinders painted green, Company B distributed oxygen in cylinders painted red, whereas Company C distributed ethylene in cylinders painted red. Inconsistency in dispensing carbon dioxide was observed in that a gray color was used on the cylinder, brown on the label, and green on the wrapper. All this has been corrected and carbon dioxide and all other anesthetic gases will now be dispensed in a consistent manner by all companies. The new color-code has brought about the use of the color green for oxygen, red for ethylene, gray for carbon dioxide, and orange for cyclopropane, etc.

Science indicated that static electricity, one of the great hazards in many of the commonly used anesthetic agents, could be eliminated by grounding. Commercially, this safeguard was applied to gasoline trucks in the form of the drag-chain placed at the rear of the truck. The purpose was to eliminate explosions and loss of property or lives, but the fallacy thereof soon became apparent. The trucks were legally required to use these chains, but explosions were not eliminated. Possibly the gasoline spilled from the front part of the truck had time to combine with air forming a highly explosive mixture. The chain at the rear of the truck may have led off static but mechanically struck a spark and thus produced an explosion. Science has been called in to assist the anesthetist in protecting the operating room against fire and explosion hazards. Many valuable suggestions have been made. Some are fallacious, however, as is indicated by a recent proposition in the Electrical Code of the state of New York to move all electrical connections to a position 7½ feet above the floor and thus avoid spark ignition of accumulated anesthetic mixtures which might "pool" on the floor. Time alone will tell how many fatal fractures of the skull or spine will occur from tripping over long cords or falling off chairs, steps, or ladders while placing plugs in position. Recent figures indicate one explosion in 150,000 administrations of anesthesia and one fatality in ten explosions, or one death in 1,500,000 by explosion and one in 1200 given spinal anesthesia or 25,000 given ether anesthesia. At times the prevention is worse than the cure!

A reliable, mechanically satisfactory intercoupler has recently been developed. It had been supposed that this would eliminate the explosion hazard. When one of these devices was properly installed in a new operating room with air conditioning—humidity regulated at 65%—adequate

ventilation and temperature at a constant level, there was an explosion when the anesthetist took the apparatus apart and began to reassemble it. What was the reason? It has been found by the Edison Laboratories that the amount of electricity generated by an ordinary lead pencil rolling from a desk blotter to the top of the desk produces the minimal amount of current which is necessary to produce an explosion under ideal conditions. Fortunately, ideal conditions seldom exist, but the facts now known about static are such that common sense, plus education in the normal phases of the handling of compressed or flammable agents, must be thoroughly exhibited not only by the anesthesiologist but also by the technician.

It is true that many objects, especially metal, hold large electrical charges. In one known case the metal clip on a fountain pen was the source of a spark resulting in an explosion injury. It is also known that only certain mixtures of gases will ignite, burn, flash or explode. Garage mechanics daily solder gasoline tanks on automobiles, but they know that the tank must be full, as liquid gasoline will not burn. Flammable agents will not burn when concentrated or greatly diluted. Another fact to be remembered is that in the administration of flammable drugs to a human being it is necessary to pass through levels of concentration which are highly flammable. It is an established fact that electrical current or static can be equalized when both hands of an individual touch two objects of unequal electrical potential, for no sparks can occur between objects of equal electrical potential. Thus, if an apparatus for flammable drugs is to be dismantled, all metal parts should be uncoupled by a person touching the free metal portion with one hand, and touching the metal portion from which the first is being removed with the other hand. The same process should be repeated when these parts are put together. The rubber parts ordinarily used by the anesthetist are nonconductive and, therefore, insulate the various metal sections, collars, and rings of the apparatus. These insulation points are the source of danger from fire or explosion. If the face-piece is raised by a nonconductive rubber mask or cushion, it forms a definite hazard unless the anesthetist's hand touches the patient's skin and the metal portion of the inhaler.

It is possible in the absence of a custom-built intercoupler to use an ordinary operating room towel saturated with tap water and laid across a bare metal portion of the apparatus and the floor of the operating room, if the floor is grounded electrically. A wet towel will conduct a charge in a manner similar to an intercoupler. Tests have shown that the resistance of a wet towel is approximately the same as that of the Horton intercoupler, 1 megohm. Thus electrocution by "back flow" is equally well prevented. The Horton intercoupler has five leads and will function even when any two of these are out of order. The only way to find out whether a lead is "live" or "dead" is by testing. The only way to find out whether a wet towel is working is to keep it wet and watch the orderlies and nurses to see that it is not removed.

The most important thing to remember in regard to fire and explosion hazards is that no apparatus or technique has been produced to date which will provide 100% security. None of the intercoupling or grounding methods, humidification, ventilation, conductive rubber, or any other procedure or combination of procedures has been found which does not require that ordinary intelligence and common sense be exerted to prevent disaster.

CONCLUSION

In conclusion, an attempt has been made to show that many of the facts which deal with the entire process of anesthesia have been distorted in one way or another until the practice of this art has been considered one of special hazard. It sometimes seems that our fears are based more on "what we know that isn't so" than on what we don't know! The fact remains that hazard is connected with the practice of this specialty. The remedy for this fallacious reasoning is the assiduous application of intelligence, education, and common sense. Neither gadgets nor intricate mechanical devices can replace human brains in determining the facts and avoiding the fallacies.

DISCUSSION

Ernest P. Buckley, M.D. (Jeffersonville): Dr. Wood's paper needs further study—constant study. That was brought out especially in his closing statement to the effect that you can't put brains in a machine. Anybody can give an anesthetic with a machine if he is told to set the feeds at certain percentages and then sit and watch the patient. But, as Dr. Wood so clearly stated, that is not anesthesiology. That is merely technique, and we are attempting to raise ourselves above the technician level. It is men like Dr. Wood—leaders in this field—who spur us on to greater accomplishments.

Something happened to me last week that is slightly different. I had a patient who had been told by a physician that he should never take an inhalation anesthetic, the reason being that he had had pneumonia following an appendectomy and the pneumonia was blamed on the ether. He had a bad case of hernia and wanted it cared for under local anesthesia. We gave this patient a local anesthetic, he was operated on for hernia and very promptly developed pneumonia. That is just one of the little fallacies that come up because the case is not studied sufficiently.

I am sure that we all will profit greatly from the example placed before us by Doctor Wood. We shall strive to study future developments in anesthesia, and each one of us will do his utmost in contributing to the advancement of our specialty.

CHARLES N. COMBS, M.D. (Terre Haute): Dr. Wood's address may be New York, but he's just a common old Hoosier boy, as evidenced by the common sense in his paper. He was born in Frankfort, and I happened to be born in the same county. There must have been something in the soil that nourished our intense interest in this line of work.

Dr. Wood made a very cogent remark when he called attention to the fact that there is a difference between a technician and an anesthesiologist. If we are guilty of giving routine anesthesia and routine preoperative medication, we create the impression in the minds of the public and of the surgeon that we are simply automatons or technicians and follow a rule. We should reserve for ourselves the privilege of seeing each patient, of writing our own orders and deciding on the nature of the anesthetic, and should not allow ourselves always to be dictated to by the surgeon or by the patient.

Of course, we must also use common sense. We have to depend upon the surgeon for our livelihood and we can not always refuse to take his advice. When the decision is to be made as to the agent to be used, the course to pursue is to collaborate with the surgeon.

F. W. RATCLIFF, M.D. (Lafayette): Last winter a manufacturer of gas apparatus spent some little time explaining to me an idea that he had, and if I remember it correctly, his opinion was that explosions occur in certain regions. He seemed to believe, from his experience, that some regions of the United States are much more favorable for explosions than others. He gave me the idea that in this locality we are somewhat fortunate in being out of the explosive region. I think that Dr. Wood is qualified to give us an opinion regarding our position in this respect.

F. T. ROMBERGER, M.D. (Lafayette): I enjoyed Dr. Wood's paper very much, and I wish to congratulate him and also to congratulate our Section in having him here as our guest.

DR. WOOD (closing): It is easy for me to stand here and describe, to the best of my ability, how to do these various things, but it is often very different to demonstrate how they should be done. I have brought a mask and will later show you what I mean by "grounding" your apparatus through your own body, and how some of the hazards can be minimized but not necessarily prevented.

The scientists or the physicists will tell you that if there is sufficient humidity it is very difficult to accumulate static, which is true, but after all, what is lightning? Lightning is caused by the formation of static, a manifestation of static, and it may occur in the middle of a hot, dry, sunshiny day, or during a rainstorm when there is a humidity of 101°. Thus, that advice about humidity is sometimes misleading. We as physicians have taken special training and are supposed to be the best trained, from an educational point of view, of any specialists in our line; yet we allow somebody, because he happens to be the secretary of this or that organization, or because he is professor at some university, to say: "Why, sure it can all be stopped. All you have to do is to ground it." That simply does not work. Or someone else says: "All you have to do is to keep the humidity what it should be." Neither does that work.

The argument against this type of intercoupling is a good one. If you have intercoupled several objects, but not all of them, are you not increasing the hazard? I do not know. I am leaving these points open for you to think about and discuss, and then choose the method you prefer. We must, however, come to a conclusion eventually, for the courts are becoming more interested in explosions. Some prefer to use a metal beaded chain and ground plate, which will also carry off the current, and which, because it is a beaded chain, does have variable electrical resistance. If the weight is sufficient to keep the chain tight, there is almost no resistance, but it is possible that all of these little beads could be in such a position that no current would be carried off. Again, connection to any base metal part of an insulated object grounds that object. When the idea of preventing explosions with ethylene or ether first came out in 1923, we set up an elaborate test at the Sea View Hospital. We connected an electrical battery and lamp in flexible copper wire circuits with table machine, patient, nurse, surgeon and anesthetist, and in a test covering seven hours it was found that somebody broke the circuit on an average of every seven minutes. Sparks occur electrically when circuits are made and broken. What is the best thing to do? Some think that grounding is the answer. If you do, you have your own reasons for thinking so, and it is up to you as a licensed physician to act according to the best judgment at your command.

Caution has become automatic, for in testing gases in a laboratory where flammable or explosive gases are used, we automatically intercouple potential hazards. Unless we can show each other and our students the proper methods to pursue, somebody will err because of lack of instruction.

Machines are not going to blow up every time they are used. We have been giving anesthetics long enough to know that, but please use this information to protect yourselves and others. When a fatality occurs, ascertain whether you committed one of these technical errors.

131 RIVERSIDE DRIVE.

DO NOT FAIL
to read "Recommendations to Physicians with Reference to the National Emergency" on page 92.

ANESTHETIC AGENTS AND ANESTHETIC FAILURES*

J. M. WHITEHEAD, M.D
INDIANAPOLIS

When peoples of ancient civilization erected temples to their gods, they created monuments from which the modern world was destined to recover the course and character of early progress. All through this course the relief of pain has been a predominate factor. The hypnotic influence of weird incantations and the administration of various stupefying brews were but forerunners of our present day armamentarium for the relief of pain. Our efforts in the development of anesthesia have been filled with hope and despair, comedy and tragedy, success and failure, disappointment, hate and greed, but through it all we are still struggling toward an ideal goal. Whether our efforts shall be regarded in future ages as but a slight step forward, or classed as an obsolete chapter, remains to be determined. Nevertheless, we are making history which will serve as a stepping stone for further progress toward a perfect and ideal goal.

The multiplicity of drugs now in use, the advent of the sulfonamide group—with its not too clear and well understood effect upon metabolism and biochemistry—confronts us with new problems as to the use of our various anaesthetic agents. The true value of any agent or method is dependent upon the long clinical application of its use. One by one we have seen the accepted agents of former years replaced by newer and (we hope) better methods, requiring intricate technique and elaborate apparatus, until today we have a very formidable array of various agents designed to meet any requirement. Yet, we might be led to wonder if this mutiplicity of agents and intricate technique is not *prima facie* evidence that we have not yet reached the desired goal of a safe, simple method. It is inconceivable that any agent so potent as to render inanimate all but the lowest form of vegetative existence should be void of danger, and what the ultimate effect of the production of such an agent will be, it is impossible to forecast. I do not refer here to the matter of anesthetic recovery as we ordinarily consider it, but the occult and remote effects produced by toxicity, anoxemia, abolished reflexes, altered metabolism, et cetera.

It is not the purpose of this paper to dwell upon the characteristics of any drug or agent nor to expound any new theories as to the proper technique of administration. These are well known to all of you, but I should like to offer a plea for simplicity and safety and a technique void of frills and fancies.

I think most of us will agree that in the administration of an anaesthetic with a reasonable degree of success, it is of prime importance that you know your agent and your surgeon. It would, indeed, be fortunate for us if human beings were built according to stock patterns and thus do away with all the various factors to which humanity is heir. But that would make our work uninteresting and stale. It seems to me that better anesthesia would obtain if we would exercise the same degree of enthusiasm in perfecting our administrative technique and regard the agent used as being of secondary importance.

To give some idea as to what agents are used in what we think is a modern hospital with a trained anesthetic staff, I should like to present the following figures for 1938, 1939 and 1940, and thus derive some conclusion as to the trend.

REPORT OF ANESTHETICS ADMINISTERED

DEPARTMENTS OF SURGERY AND OBSTETRICS

Surgery

Generals:	*1938*	*1939*	*1940*
Nitrous Oxide and Oxygen	260	284	173
Ethylene	242	118	14
Cyclopropane	2229	2746	2912
Cyclopropane and Local	0	0	5
Gas-Ether	190	240	233
Ether	369	197	307
Ethyl—Chloride—Ether	1260	1652	1474
Ethyl—Chloride	133	118	128
Gas—Local	0	2	1
Avertin	169	135	102
Avertin—Ethylene	127	72	9
Avertin—Ether	825	621	661
Avertin—Gas	129	122	105
Avertin—Cyclopropane	876	1134	1201
Avertin—Local	47	26	17
Avertin—Pentothal Sodium	0	0	2
Spinal	81	183	334
Spinal and Cyclopropane	0	0	4
Sacral	4	1	1
Caudal	0	2	0
Pentothal Sodium	7	19	316
Pentothal Sodium—Ether	0	0	4
Avertin—Ethyl—Chloride	0	0	1
Pentothal Sodium and Gas	0	0	8
Pentothal Sodium—Cyclopropane	0	0	8
Gas—Cyclopropane and Avertin	0	0	3
Cyclopropane and Gas	0	0	2
Evipal	27	15	11
Vinethene	6	0	0
Vinethene—Ether	2	0	0
TOTAL GENERALS (SURGERY)	6983	7687	8036
TOTAL LOCALS	3548	4177	4853

Obstetrics

Ether	1406	1430	1693
Cyclopropane	57	42	54
Gas	50	13	11
Ethylene	7	10	4
Gas—Ether	14	10	7
Ethyl—Chloride—Ether	0	0	2
Chloroform	47	23	9
Spinal	1	0	0
TOTAL	1585	1530	1782

* Presented before the Section on Anesthesia of the Indiana State Medical Association at Indianapolis, September 24, 1941.

At least ninety-eight per cent of the ethyl-chloride and ether anesthesia were ear, nose and throat cases. Spinals were at least ninety-five per cent of the low type. This series covers a wide variety of cases as to type of operation and age incidence, as well as a number of surgeons, with varying degrees of talent, who desired to dictate as to the type of agent used regardless of pathological conditions present.

In the main intravenous anesthesia was used in operations of short duration, although it was used in some cases requiring forty to forty-five minutes. Inhalation anesthesia of the gaseous types was administered by the closed technique, with filter attachments.

In has been our effort in the use of various agents not to confine ourselves to a single agent when conditions warrant mixtures and addition of other agents; hence, we have an admixture of agents designed to produce the required result with safety to the patient. As to the merits and demerits of the agents now in vogue, I leave that to your judgment, but with the admonition that the criterion should not be based on percentage or liters per hour but on the requisite of the patient at that particular time.

ANESTHETIC FAILURES

It is obviously impossible that perfection should obtain when so many factors are variable. Perfection in anesthesia is obtained only when the patient is brought through that state of suspended animation with the least appreciable damage to physiological function. It is our job to so administer the agents we have that this result is obtained. A good anesthetic, from the patient's viewpoint, is not necessarily a good anesthetic from the standpoint of the surgeon. It is a conceded fact that long, deep, surgical anesthesia is detrimental to normal physiological function, and with physiological function altered by existing pathological conditions it is obviously more dangerous. The surgeon who cannot adapt himself to the needs of the patient would serve humanity better by confining his excursions to the morgue.

The cause of the majority of anesthetic failures can be traced to improper medication or to the improper choice of drugs. In the administration of an anesthetic it is imperative that you know your agent, and important that you know your surgeon—always keeping in mind the fact that the patient is a variable factor whose reaction can only be looked for, not prejudged.

The effects of metabolism in health and disease are variable; retention, absorption and elimination are disarrayed and only to the experienced observer are the least changes manifest.

In bygone days, and days of not so long ago, a good deal of criticism was meted out to the anesthetist for postoperative as well as operative complications, and perhaps rightly so, but the time is fast approaching when the anesthetist is to be regarded as a vital link in the surgical team. Many anesthetic failures are attributable to the fact that we lacked the intestinal fortitude to incur the displeasure of the surgeon rather than protect the safety of the patient. It seems to be an inherent right among most of us to find solace in our own shortcomings by placing the blame elsewhere. How many of us have seen an operator lost in a labyrinth of guts, yelling for deeper anesthesia in an already deeply anesthetized patient, and, to oblige, we push the patient still deeper and nearer the brink. Is that an anesthetic failure? Yes, because we have damaged that patient's physiological balance unnecessarily to assuage the intractable temper of an incompetent operator. How many of us have had the experience of having a husky two hundred twenty or two hundred and forty pound cyanotic patient, with a mouthful of hemostats and sponges, send forth ether-scented columns of blood like a blowing whale? Is that an anesthetic failure? Yes. Why? Because some operator refuses to qualify himself to work for the best interest of the patient and use the proper anesthetic.

Accident cases offer a great problem and contribute largely to anesthetic failures. It is seldom that the emergency is so dire on the patient's part that proper time cannot be taken for surgical or anesthetic preparation. Pulmonary complications, asphyxia, and in many cases shock could be averted by preparation, and the factors which contribute to anesthetic failures eliminated.

It is my opinion that the incidence of anesthetic failures would be greatly reduced by proper team work, adequate preparation of the patient and the selection of the proper anesthetic agent—and let me here make a plea that we divest ourselves of all the superfluities which make for intricacy and grand-stand play and confine ourselves to the simple and safe measures which insure the desired outcome for the patient.

In discussing anesthetic failures I have not considered anesthetic deaths and anesthetic accidents. These can be due to faulty technique or to damaged metabolism, aspiration, and many factors with which you are all familiar, but I have considered as an "anesthetic failure" the failure to bring the patient through the ordeal with no physiological damage, present or remote.

Finally, it is necessary that one be familiar with disturbances in an operating room, a knowledge gained from association and experience and not from a library. One should possess the knowledge and ability to institute necessary measures, as occasion demands, before being trusted to watch over the fate of life, death and morbidity. A good surgeon friend once remarked, "I can make a mistake and sew it up, but if you make a mistake the undertaker covers it up."

Added Comment:

It may or may not be apropos on this occasion, but I should like your indulgence for a few moments in order that we may pay our respect and homage to a fellow worker in our field who had his background and training in our midst. The signal honor conferred for meritorious achievement and tireless effort merits our respect and deserves our commendation. Many of you, no doubt, have not had the pleasure of knowing the man personally, but know of his work as an outstanding contribution to scientific anesthesia. Long years of exhaustive work and research have heaped upon him the reward so justly earned and deserved.

Madam Chairman, I move you that this Section of Anesthesia of the Indiana State Medical Association extend to Doctor Arthur Guedel its congratulations for the award made to him of the Henry Hill Hickman Medal and wish him more and greater success in the future.

DISCUSSION

PAUL M. WOOD, M.D. (New York City): I would like to ask your indulgence for one moment. I received a letter from Dr. Arthur Guedel just three days ago, and he asked me to be sure and remember him to everyone at this meeting who knows him.

Art is one of the finest fellows that ever lived, and one of the greatest thrills in my experience in anesthesia was to be invited to come here to Indianapolis where Art started such marvelous work and worked so long. We all know how he misses the active clinical work, and I know he would greatly appreciate hearing from any of you.

I wish to extend the congratulations and greetings of the newest State Section on Anesthesia in the United States to you, the second oldest section in the country. The New York State Section held its first meeting in Buffalo this year and its officers asked me to convey their greetings to the Indiana State Section.

In discussing Dr. Whitehead's paper I want to mention, first of all, that I didn't see his paper and he didn't see mine, but we have the same ideas. Accidents in connection with anesthesia, or a majority of them, are due to a lack of teamwork, lack of cooperation, or lack of technical judgment. The drugs themselves are satisfactory. If a person has the proper training he can use almost any drug successfully for almost any condition.

One of the points Dr. Whitehead might have stressed, and something we all neglect to do, is to specify what, in our own experience, we think is a proper dose. This sometimes causes the next person to think that possibly he is using the same dosage which we use. That was the thought that I intended to convey in one of my comments about not following a technique exactly. It is an important and necessary point.

Now, something about the drug as a cause of difficulty, as suggested by Dr. Whitehead. I wish to report a very interesting case. Three days ago a representative of a large medical gas company came into my office and told me of his experience. He was called to an institution to remove all of the nitrous oxide manufactured by his company, for a new anesthetist just beginning the service stated that "all the patients who had been given any of the gas had turned blue and that it must have been caused by the gas." It happened that the cylinders were all newly painted blue, and, since the paint was new and sticky, it was thought that "it must have gotten mixed with the gas." Now, that is a fact. Such a thing doesn't seem possible, but it happened in the United States last month. It is only through the efforts of groups such as this one that such false notions can be eliminated.

ABSTRACT: ANOTHER ARGUMENT FOR MAINTAINING PHYSICAL FITNESS

Another argument for maintaining physical fitness is contained in a report in *The Journal of the American Medical Association* for November 15 by Edward K. Cravener, M.D., and Donald G. MacElroy, M.D., Schenectady, N. Y., which suggests that the sedentary person in poor physical condition is more liable to injuries of the cartilage between the knee joint than the well developed person. This is based on a study of 1,700 of their own and other cases reported in medical literature.

Regarding other apparently predisposing factors the authors say:

"1. Injuries to the cartilage occur most commonly at about the twenty-ninth year of life.

"2. They are usually the result of intolerable torsion strains. . . . Injuries of the cartilage may be either push or pull injuries and frequently are both. . . .

"3. We believe that they occur most commonly in the obese, the under-muscled and the wide-pelvised person. These three factors may have the same basic cause.

"4. The ordinary expectancy of results shows marked improvement in 90 per cent of cases in which operation is done. With the nonoperative methods 55 per cent of cures are expected.

"5. Ordinarily, the younger the patient the quicker the recovery.

"6. Patients operated on before the end of the sixth week after injury often have severe effusions. With the indecision which arises as to whether the lesion is through the vascular zone, and hence curable by conservative means, we believe that all patients should undergo six weeks' preliminary immobilization.

"7. Injuries which recur after this period can be cured only by removal of the damaged cartilage.

"8. Locking, despite the common belief, occurs in only 30 per cent of cases. Pain and instability are the most common symptoms.

"9. Partial or complete failure of recovery after operation is due to many causes, chief of which is faulty diagnosis. Another important one is failure to operate before the end of the first year after trauma."

A SIMPLE DEVICE FOR ADMINISTERING INTRAVENOUS BARBITURATE*

LILLIAN B. MUELLER, M.D.
INDIANAPOLIS

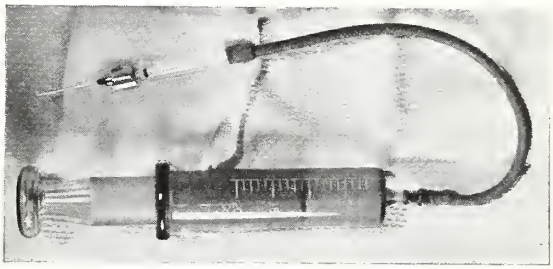
The addition of intravenous barbiturates to the list of anesthetic agents has placed in the hands of anesthetists a method which is efficient and delightfully satisfactory to patient, surgeon and anesthetist.

From the patient's standpoint intravenous anesthesia is most acceptable because the induction is quick and pleasant, the recovery is prompt, and it is seldom accompanied by nausea or vomiting. The surgeon also likes this anesthetic because it is quick and gives good muscular relaxation. In many instances it is the answer to the anesthetist's prayer. It fills the bill because it is simple, it does not require bulky equipment, and it is non-explosive.

One drawback, however, soon became evident to the anesthetist. As is the case in any general anesthetic which produces muscular relaxation, when consciousness is lost the jaw drops, the tongue falls back, and the airway is obstructed. The anesthetist's hands are occupied holding the syringe in such a way that the needle is not displaced in the vein, hence, another anesthetist or a nurse must assume the responsibility of maintaining an open airway. Often in a busy hospital there is no one free to assume this responsibility and it devolves upon the anesthetist to perform both tasks. The thought occurred to me that if the needle could be fastened into the vein, as for a venoclysis, and the syringe attached to it by a small piece of tubing, then the syringe could be laid down or held in one hand, leaving the other hand free to hold up the patient's chin or otherwise to maintain the patient's airway.

Accordingly, we now use a very simple device which accomplishes the above purpose. It consists of a piece of ⅛ x $\frac{3}{64}$ inch rubber tubing, 10 or 12 inches long. This is fitted at one end with a metal adaptor which slips on the Luer tip of the syringe, and the other end is fitted with a small Luer glass observation tip which slips into the needle. It takes two cc. of solution to fill this small tube; so if there were twenty cc. in the syringe to start with there would be eighteen cc. by the time the tubing and observation tip is filled. This small amount does not necessarily need to be lost, for it may be forced into the vein with air when the syringe is empty.

After the venipuncture is made the needle is taped to the arm in such a way that it can not be easily displaced. The anesthetic solution is then injected into the vein in the usual manner. The anesthetist holds the syringe in one hand, leaving the other free to hold up the patient's chin or to do whatever is necessary to prevent respiratory obstruction. The syringe may be laid down if both hands are needed. If this is done the syringe should be placed on a table or other surface slightly higher than the patient's vein, so as to prevent the blood from flowing back and possibly obstructing the needle. This method has an advantage, especially when a long anesthetic is required and it is necessary to use more solution, for the empty syringe may be easily replaced with a full one without affecting in any way the position of the needle in the vein. All the articles needed for this procedure may be put up in a small bundle and autoclaved, thus assuring the sterility of everything used in giving the anesthetic. The above described simple device is used to advantage by the anesthetists of several Indianapolis hospitals. It makes possible a smoother and more satisfactory administration of intravenous anesthesia.



Twenty cc. syringe for administering 2½% solution of sodium pentothal, with adaptor, tubing, Luer glass observation tube and intravenous needle.

DISCUSSION

PAUL M. WOOD, M.D. (New York City): I wish to compliment Dr. Mueller on the simplicity of the device she has presented. In the literature are all sorts of gadgets. Perhaps you are acquainted with some of them. I am reminded of the great machine that finally overran its inventor. Some of the devices recently advertised for the administration of pentothal intravenous solution are complicated and require one or two assistants. This is a step in the right direction, and it embodies an ideal principle of simplicity.

Dr. Mueller, in changing the syringe, when you have to use an additional amount, what means do you use to prevent blood flowing back?

CHARLES N. COMBS, M.D. (Terre Haute): I have one of those complicated gadgets described by Dr. Wood, but it requires a good deal of attention, so I have appropriated a device that I have

* Read before the Section on Anesthesia of the Indiana State Medical Association at Indianapolis, September 24, 1941.

added to Dr. Mueller's layout—that is a stopcock that intervenes so there will be no reflux of the blood. I find that even though the syringe is pretty well elevated, the blood will sometimes flow back into the needle during the latter part of the anesthetic, especially if there is an interval of ten or fifteen minutes. In most cases where the interval is short one will experience no difficulty, but when the interval is as long as ten or fifteen minutes the stopcock is a good thing.

It is also very important that the anesthetist be equipped to give ogygen at any time, particularly if the anesthetic lasts longer than thirty minutes. You might need a longer tubing in case you use a machine with which to administer the oxygen. Of course, if you are using nasal oxygen, it can be done with this device.

F. T. Romberger, M.D. (Lafayette): We have used the so-called complicated device of Thomas's but have simplified it by cutting the mechanism in half, and I like to use only one syringe. We prefer that method, particularly for two reasons: First, it always frees one hand, and occasionally two hands. Secondly, as our experience is extended we are using a much more diluted solution, considerably less than five per cent. In fact, at times it is so diluted that I don't know what per cent I am using. But I do know that sometimes the dilution is down to about one per cent, or perhaps one and one-half per cent, and that is gauged on the theory that you must watch your signs in this type of anesthesia just as you would do with ether or any other type of anesthesia. I like to have the syringe supported, and I like to have the privilege of using a greatly diluted solution in my bottles. If you watch your signs closely, it doesn't matter a great deal whether you use a one per cent or a five per cent solution. We use ordinary normal saline to make our solutions.

Dr. Mueller (closing): It is true that there is a possibility of blood flowing back through the needle. We try to keep just enough solution flowing into the vein to keep the needle open. We use, generally, a two and one-half per cent solution instead of a five per cent solution, so that by putting in a drop now and then the patient really does not get a very large dose. The stopcock might be a slight advantage. It has been used by some anesthetists and was described by O. A. Nelson, of Seattle, in the March-April volume of *Anesthesia and Analgesia*. The important thing about this little device is the fact that it is so simple.

THE PRACTICE OF OPHTHALMOLOGY*

FRED McKEMY RUBY, M.D.,
UNION CITY

Under the prerogative which is mine, as one of the older generation, I am today taking the liberty of calling your attention to several experiences in a large practice in an average community. As Dr. Gifford said in the preface to his most valuable little book on popular therapeutics, "A chance series of cases with a fortunate outcome may convert an ophthalmologist of unquestioned standing into an enthusiastic advocate of a measure which has little to recommend it theoretically, and which in the hands of other men may later prove absolutely worthless." This may be the case in this series. My practice has been on an oasis in a small town, with a vast surrounding country which for fifty years has looked to Union City for its eye and head care. My predecessor, Dr. C. S. Evans, was one of the first hundred specialists in this country, and he was the only one between Cleveland and Indianapolis when I first knew him. Let me say here that I am not promulgating any new theories; I am not making any criticism of the modern ways for which I hold only the highest regard, but I will relate some of my experiences.

Eye Injuries (Intra-orbital)—Injuries to the eyeball—penetrating injuries: These injuries have occurred in all age groups, ranging from children of ten months to adults, and represent about sixty-six eyes. These eyes were saved—not removed—when any kind of repair could be performed, and after all this time we have had no blindness of the second eye, and have had to remove only four of the sixty-six injured eyeballs at a later date. These eyes were all treated conservatively, after hearing Dr. John Wheeler, in 1909, explain to a Virginia physician that with a penetrating wound of the eyeball he enucleated the eye, for if it should flare up, he would be too far away to take the risk of sympathetic ophthalmia. Hence, since most of our sixty-six cases were within a two-hour reach of our office, we waited. Many of these eyes, especially in children, have been of great value in the development of the face—better than with an artificial eye. Mind, we do not save all eyes; we have at *the time of injury* removed many more than sixty-six eyes.

Intra-ocular Foreign Bodies—In recent years we have had two cases of old intra-ocular foreign bodies giving rise to sporadic attacks of irritation, redness and tenderness over the ciliary body. One would run the six weeks' gamut of a real iridocyclitis; the other soon cleared up on heavy atropinization. In the latter case, in which a

* Read before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at Indianapolis, September 24, 1941.

needling of a traumatic cataract was done in a boy whose eye was hurt by an exploding cartridge many years earlier, some three years ago a particle of what seemed to be cap-paper showed up in the limbus of the iris at seven o'clock. With each succeeding attack, this particle and all the injection centered about this point proved to be larger. We have had an unholy desire to remove the object, or try to do so, but the lack of useful vision has made us hesitate, for an enucleation would probably be the procedure of choice. The other case, in an older man, showed only after atropinization a small foreign body imbedded in the anterior capsule, with no haze and no history of injury. However, removal of all his teeth has stopped the recurrent iritis, so the foreign body must have been only an incident in his case.

Just now we have a girl, nineteen years old, whose right eye was injured slightly ten years ago when her brother was breaking an iron wheel. Not until we used a small magnet on the eye two weeks ago did we know that a penetrating wound had been caused by the particle of iron. This particle is loosely attached to the margin of the iris at about two o'clock. We are intending to remove the particle by means of a magnet subsequent to the quieting of the reaction which is now present.

Use of Prisms in Refractions — When I was in training I was warned against the use of prisms except as they were loosely used for training. A prism in a correction lens was considered as evidence of lack of correct training as an ophthalmologist. However, we soon found many an adult who could be given half of the correction for his prism error and could then handle the rest by his own binocular effort. We have records of several hundred such cases using absolutely no prisms after a period of from two to five years and enjoying reasonable comfort while regaining muscular balance. Possibly this fact, together with the commercialization of orthoptic apparatus, has led us to shy from any of the various machines so well advertised. We do all of our lateral deviation training with the use of a stereoscope and selected pictures. Having seen two or three eyes ruined by glaucoma as a result of some doctor exercising them to relieve a muscular imbalance, which we could not find, has made us feel that selling arms and oil to Japan has not been our only error.

"Eyesight Specialists" (Licensing)—While discussing this touchy subject, may I assert my belief that all refractionists should be licensed by the medical departments or boards of each state. This procedure would assure us of the professional attitude of the applicants, and they would be certified in accordance with their qualifications. Allow me to give two concrete examples of recent occurrence. A retired bank president in eastern Indiana needed some new glasses—at least he couldn't see well. It so happened that in a nearby city there was an optometrist who was the high "something-or-other" in a fraternal lodge. So our fraternal friend went to him, paid a bank president's price for some new bifocals, and when in two or three weeks he reported his disappointment in the new glasses, the optometrist said, "Let's go into the dark room. My God, man, you're getting cataracts." And the optometrist *kept* the money for the glasses.

A few weeks ago we received a letter from a widow, to whom we had refused to give glasses three years ago because of an amblyopia, telling us that she had gone to Richmond this spring and bought some glasses which did her no good. The optometrist then advised her to "get a lawyer and apply for blind pension." When she was sent to us by the said lawyer for an examination, we were forced to tell her that the Welfare Board would take care of her without his help.

Uncomfortable Presbyopes—Going from the above subject to the question of discomfort in a seemingly well-fitted correction, especially in presbyopes, we have found many of them to be very happy after two or three weeks' administration of one-half per cent of pilocarpine nitrate on going to bed. The eyes relaxed more promptly and the patient was certainly more comfortable.

Eye Pain—And, may I say that we have not been able to duplicate the lymphogogic action of dionin (even in a one per cent solution) with glycerine or any other such excitant. The more rapid healing after bruises and in early iritis has made us use dionin extensively in such cases.

Also, in many irritable eyes following injury, when no ocular disturbance could be definitely discovered, we have put a tampon of weak cocaine and ephedrine along the middle turbinate of the affected side, and for some reason, perhaps ganglionic anesthesia, have promptly relieved a suffering of several days' duration which often did not recur.

Finally, in real ocular injury or distress, except in the presence of fresh hemorrhage or penetrating wounds, our patients preferred heat to cold, and usually proved it to us by their more willing collaboration and by a more rapid convalescence.

Light Reaction—In searching for some solution to be used in the eye for allergic conjunctival irritations, especially autumnal hay fever, we combined the standard $ZnSO_4$ in boric solution with ephedrine sulphate 3%, aqueous, in the proportion of two to one; and found not only that there was less itching, burning and lacrimation, but also in many cases the sneezing attacks were fewer. We have never prescribed cocaine (for allergic eyes) for the patient to use, although one patient responded to one-fourth per cent butyn in the above solution. Rarely is an anesthetic necessary.

Tinted Lenses —Color absorbing lenses: It has always been my opinion that most of the protective lenses worn by the mine-run of patients were of

more benefit to the dispenser than to the wearer. Present serious times, together with failure of physical evolution to keep pace with our economical and sociological advance, of course leave our eyes at a distinct disadvantage. In examining patients wearing a tinted correction, we find that in most of the cases the tint is used to take the place of a corrective medical treatment. We probably prescribe one pair of absorptive tinted lenses to fifteen or twenty pairs of clear correctives, and correct the usual glare discomfort by treating the conjunctiva. (In many cases we are able to tell the patient where he secured his last glasses because of the refractive correction plus the particular tint used.) We are grateful to the optical industry for giving us these very useful glare absorbing lenses and *do* use them freely when the ocular condition or the industrial requirements so indicate.

Eyes in Industry—At this point let me mention something that developed this morning—two observations on eyes in industry. In the first place, a one-eyed person is not a hazard in industry providing he has been a one-eyed person since childhood. I believe that you will find right now that many of the new examinations which are being required in industry are putting perfectly capable people out of jobs when they find that one eye is not functioning, whereas it never did function, and these people who grow up from youth using only one eye are able to overcome the handicap entirely by using the same system that the surveyor uses. That is one thing we must observe. In the second place, a great many traumatic cataracts may just as well be left in provided the other eye is good. I make that statement for the reason that in Minnesota, a few years ago, we were required to remove all traumatic cataracts from men working in mines, and it was a very pleasant experience, for most of the patients got along fine and left their glasses at home after the third or fourth week because they depended on their good eye. The only advantage in removing the cataract was that passing objects were a little clearer, even without glasses, than with the cataract left in situ. Most of them had light perception, and those who didn't derived no benefit from the operation.

Yellow Oxide—The use, by general practitioners, of yellow oxide of mecury ointment in all cases of eye diseases seems to be finally diminishing. The fact that many eyelids are sensitive to yellow oxide caused numerous cases to be sent to our offices with a marked blepharitis. The increasing use of various other antiseptic ointments has reduced this type of case. In its proper place, the yellow oxide ointment can not be surpassed—but not as a cure-all.

Vaccines—As a general observation we would say that vaccines are of limited use in our practice. Some tubercular conditions seem to respond to specific therapy, but the results are unusually slow. Foreign protein therapy has been of distinct service, in addition to the other measures, in ocular inflammations, especially the acute.

Legal Aspects—Fortunately, we have escaped the legal aspect of ophthalmology, except in compensation cases. At the present time, however, we have a patient who presented herself to an ophthalmologist to be treated for a cystic meibomian gland on the lower lid. His first treatment seemed to do well, but when she returned for further observation, he feared that there might be some sac membrane left, so he reopened the cyst, cauterized it with phenol, and somehow allowed the lid to approximate the cornea, giving her a very severe keratitis and a leukoma which entirely prevents her using this eye for close vision. We have never told her what caused her trouble, but she thinks she knows enough so that the insurance company is seeking a settlement. (When I realize how often I could have done the same thing, I feel very humble.)

I wish to reiterate, gentlemen, that I am not unappreciative of modern medicine and its advances. No one knows better than I just how much easier and satisfactory the modern advances are; I doubt that anyone tries harder, or studies more earnestly, to give his patients all the benefits of these advances; but I feel that a few words from an experienced oculist concerning caution and conservatism may not be amiss. That is my excuse for this presentation.

DISCUSSION

Dr. O. T. Allen (Terre Haute): This paper is, of course, a paper stating practical results of Dr. Ruby's experiences and is not scientific, as we know the term. It seems that he has leaned over backwards to avoid its being scientific. The results of the practical experience of the older physician will never lose the interest of the profession in general, particularly since we all know that medicine is not an exact science. We all develop treatments, have personal experiences and get results, yet we can't tell why or how we got those results, and for that reason a paper of this kind usually elicits considerable discussion for we all have some pet theories and some pet experiences to report.

Now, as to penetrating eye injuries. It seems to me that Dr. Ruby has had about the same experience that most of us have had, except that he has not had any sympathetic ophthalmia cases, and if he ever does, he will probably be a little more apprehensive about the penetrating wound injuries of the eye. I hope that destiny is not waiting patiently around the corner with a stuffed club for the doctor who has never had any cases of sympathetic ophthalmia. I have had a couple of them. After the accident happened in these cases I could think of dozens of others in which the injuries were no worse and apparently not much different, but it seems that occasionally we do have a sympathetic ophthalmia, so we should always think of it. One of these cases I did not treat at all, for he was

taken to another physician. I made a flap, had the man in the hospital for about two weeks, the eye quieted down, he had 20-50 vision, and I was feeling pretty happy about it. I told him, however, to report to me every week, and he did not do that. The next thing I knew he was in the Union Hospital and had the eye removed, and he lost the vision in the other eye. My feelings were softened somewhat by the fact that when he found he was totally blind he seemed to be glad that he was in a position for somebody else to take care of him.

The other case occurred in 1937, and I realize now that I tried too hard and fiddled along too long trying to save the injured eye. I gave the standard treatment, atropine and hot packs. I started out with 25,000,000 typhoid germs and increased the dose to 150,000,000. I got no results whatever except that after those tremendous doses his temperature would go up to about 104 degrees, but would not stay there very long. After that failed I tried large doses of sodium salicylate, and I gave him as much as 200 grains a day for a few days until the man could not hear, and then I quit that rather in disgust. I let him go out of the hospital. I felt that the thing I wanted to do was to give him some of the heat treatments. The man did not have any money and I did not know what to do. Fortunately, some friend of this man, or the man he was employed by, asked him to go see Dr. Gillum. This man had the heat treatments, and he got along all right and has good vision. I hope Dr. Gillum will say something to you about the case. I have seen the man recently. He has good vision and has had no recurrence. So, if I ever have another case of sympathetic ophthalmia, I would certainly make every effort to give him the heat treatments. He was kept in the cabinet about five hours, and the temperature was kept at 105 degrees.

I just want to mention one case of foreign body in the eye. The patient came to me one year after he had what he thought was a foreign body strike his eye. He had consulted a general practitioner who had looked him over and told him he was mistaken; there was nothing wrong with his eye. All he knows about it is that he had a stinging sensation in the eye and it never hurt him any more. A year later he noticed he could not see with this eye, and he came to me. The eye was perfectly clear. The media was clear. There was liquid vitreous, very little opacity, just enough to enable me to tell there was liquid vitreous. There was a piece of steel, five diopters high, sticking in the optic nerve. Of course, no treatment was indicated. I told him he should consult some one occasionally. That was very interesting in that he had no symptoms whatever.

In regard to prisms, I am inclined to agree with Dr. Ruby's ideas. In fitting prisms, when we do have to do so, we should think more of re-establishing the normal activity of the eye than immediately relieving the symptoms. Therefore, I think Dr. Ruby's idea of giving them about a half prism correction and making a lazy eye do the rest of the correcting, eventually getting rid of prisms, is the logical and sensible way to handle these cases.

Now, as to the uncomfortable presbyopes. That phase is very interesting to me, for I happen to have some pet ideas about those cases and about the development of glaucoma and their relation thereto. I asked the doctor why he got results in giving one-half of one per cent pilocarpine. He stated that the eyes were relaxed. I think that he meant that the patient was relaxed. We know that pilocarpine stimulates the ciliary muscles directly. We know also that in the normal eye the tension rises early in the morning, after the patient's eye has been at rest through the night. It is normal for the tension to be highest at that time. We know that the ciliary body or muscle is attached to the scleral spur and that the scleral spur forms the anterior portion of the Schlemm canal. Now I am wondering if Dr. Ruby's cases were border-line cases approaching, at least, glaucoma, with a minor degree of tension, probably had tension early in the morning, and that the pilocarpine opened up the canal and thus aided them. I am wondering how many of these cases are neurotics, as we consider most of them—many are, but some are not, some are having real pain, and perhaps three or four different good physicians have tried to satisfy them with glasses but could not do so. I am thinking of cases that have been to two or three physicians. We should always take the tension, and then if we don't find any reason for it we should use some provocative tests, check them again, see them early in the morning, and get the tension at that time. Now I think that is the explanation of the doctor's results in using pilocarpine, and I don't hesitate to say that I think he got results.

What does that mean to those of us who are doing refractions? Since I got the doctor's paper, I had a patient, forty-eight years old, come to my office who had always gone to an optometrist to have her glasses fitted. She had worn her last pair of glasses eighteen months, yet she decided to come in to see me because she felt something was not right. She said her left eye pained her and she felt better when she did not wear the glasses although she could not see without them for near vision. She had been under this optometrist's care for many years, never consulted anyone else, and she had what I usually find in optometrist cases. They crowd near correction too fast. At forty-eight she had a plus one for distance and a plus two on each eye for near vision, and had already worn the glasses eighteen months. My former practice in cases of that kind was to reduce such a correction at once, but I did not do so in this case. I had read Dr. Ruby's paper, but for some reason I was too busy and I did not want to take the tension then. I told her to come back early the next morning. I wanted to see her early, but

she got in the office about eight-thirty. I would rather have taken it before she got up. The right eye had a tension of 14, and the left eye, of which she complained, had a tension of 24. I did not give her a half per cent; I gave her one per cent of pilocarpine. I told her to massage that eye several times a day. Never fail to have a patient massage the eye if he has tension. I told her to leave the glasses off except when she had to use them for near, but that she could read all she wanted to. It has been my habit for years to try to keep eyes of this kind, non-inflammatory glaucoma, at work instead of telling the patient that he should not use his eyes. I have always felt that people who are neurotics, afraid that they will strain their eyes and therefore do not use them much, are more apt to get glaucoma, and I have always felt that in these cases, instead of helping the patient, each one of the doctors will step up, add a little, and the first thing we know we have the patient wearing a glass that takes the strain off the eye. It not only does that, it takes away the natural activities that the eye should be performing. It is a lazy eye, and we are continuing to make it more lazy. In this case (I have not seen her since she started using the pilocarpine) I think I will probably surface those lenses down and take a half diopter off the distance. She can still see with one and one-half add, and make those eyes work a little all of the time during her waking moments. She will be massaging them with the action of the eye ball, and I think in these early cases that natural exercise which the eye needs but which these patients don't get will help many of them.

In this kind of a case we should not forget that it is better for any tissues in the human body to have the normal activity, and we should see that they get it.

Now another thing, with reference to the fitting of glasses I think that every man who fits glasses should have "Conditioned Reflex" posted some place in his office, and he should think of it every time he fits a pair of glasses. One of my teachers told me that he did not want to know what the other fellow put on them, and did not want to see the old glasses. He fitted the patient correctly and did not want to see him any more. I always want to know what the patient has been wearing. When a patient comes to me to have a pair of glasses fitted, I ask him if he has the old glasses with him. If he says "no," I say, "How do you know I won't give you the same correction you had?" I tell him to bring the glasses in after I make the correction. Then I think of that "Conditioned Reflex," and how long the patient has worn the glasses. Then I consider how strong a lens I should give him. I think that is an important factor and, if that were kept in mind, we would have less glaucoma of that type. So, I don't think Dr. Ruby relaxed that eye as much as he put it to work, and I think that helped the patient.

Regarding the tampon along the nose, that statement is somewhat indefinite, and I do not know just where he put the tampon. It has been my practice for years, when there was irritation of the eye, and I could not find any evidence of eye disease, perhaps I could not see any trouble in the nose, to pack under the middle turbinate on the affected side some preparation that would dehydrate the tissues, and then I would have the patient lie down for a little while. Keep a thread on the tampon and pull it out directly. Perhaps one could get no pus, only air pressure relief. I have relieved so many cases that way that I continue the practice. I put the medication definitely under the middle turbinate, where it will facilitate drainage. In severe cases I use Lloyds' specific Thuja. I have found that it will reduce the swollen membranes. It is a synthetic sulphur preparation, and, while it is more disagreeable, it is very effective in relieving pain. In the treatment of these cases I think the medication also should go under the middle turbinate. As to allergic cases, we have for a long time used about eight drops of dilute acetic acid in one ounce of one-fourth per cent zinc solution and boric acid. That helped a good deal, enough that I have used it over a period of years, but for the last two years I have not used it.

We have a lot more allergy in eye cases than many of us suspect and I frequently use torantil. It corresponds to a serum. One can give doses in any size and it works quickly. I prescribe it a great deal. The last few days I have not been able to get it. Give it on an empty stomach, three tablets at a dose, an hour before each meal, and many of the allergic cases, asthmatics, and nasal cases are helped immediately. Of course, it is only a serum. I have also seen hives disappear in an hour after taking five tablets of torantil, even severe cases where the tongue was swollen. I think that it is worth using in addition to the newer preparation, histamine acid phosphate, which is the companion treatment that is used to establish an active immunity. I have used it in a good many cases. In eye cases where I consider the case to be allergic, it is a shotgun prescription for all allergy. I started out with two drops of the stronger preparation the first few days, with miraculous results, and I probably became somewhat overenthusiastic. I have probably treated thirty cases, and the results have been so encouraging that I feel the treatment should be continued. I have had a few cases who were relieved of very bad nasal symptoms, were perfectly all right for about a month and then had a recurrence. I have two cases that returned a second time. I think that the two aforementioned drugs are worth while in allergic cases.

With reference to absorbing lenses, I do not use them very much. I use the geno-thalmic test chart. If I have a patient complaining and I find he can read as readily with 12 or 15 candle light as 100, I don't hesitate to put colored lense on that indi-

vidual. Theoretically, I think there is something the matter with the rods of the retina. I don't use colored lenses very much, but there are many cases in which it is definitely necessary to use them.

Regarding meibomian gland infection, we all have plenty of those cases. I think the most important thing is good anesthesia. If we have good anesthesia we can clean them out. I never think of using cautery of any kind.

I appreciate the opportunity of discussing this paper. I think a practical paper of this kind is worth while. We have personal experiences we want to record.

DR. FRED MCKEMY RUBY (closing): This is, of course, hardly a paper for discussion, for it deals with personal experiences. I do not want Dr. Allen to think that I did not sweat about sympathetic ophthalmia. I have saved some such eyes. I wanted specifically to keep away from a scientific discussion, for I feel that the next paper will have all that we need to carry away.

ABSTRACT

BILL FOR PROTECTION OF USERS OF INSULIN PASSED BY CONGRESS

"Congressional action on legislation to protect the users of insuiin was completed on December 19," *The Journal of the American Medical Association* for December 27 reveals in an editorial. "Prompt action was necessary because the patent on insulin, held by the University of Toronto, under which patent adequate standards of purity and strength have been maintained, expired on December 23.

"The legislation that has been enacted amends the Federal Food, Drug and Cosmetic Act by declaring a drug to be misbranded if it is, or purports to be, or is represented as a drug composed wholly or partly of insulin unless (1) it is from a batch with respect to which a certificate or release has been issued under regulations to be promulgated by the Federal Security Administrator and (2) such certificates or release is in effect with respect to such drug. The Federal Security Administrator is directed to provide for the certification of batches of drugs composed wholly or partly of insulin. A batch of any such drug, the legislation provides, shall be certified if the drug has such characteristics of identity and such batch has such characteristics of strength, quality and purity as the Administrator prescribes in such regulations as are necessary adequately to insure safety and efficacy of use. Prior to the effective date of such regulations, the Administrator is authorized, in lieu of certification, to issue a release for any batch which, in his judgment, may be released without risk as to the safety and efficacy of its use. Regulations providing for such certification must, among other things, contain provisions prescribing (1) standards of identity and of strength, quality and purity, (2) tests and methods of assay to determine compliance with such standards, (3) effective periods for certificates and other conditions under which they shall cease to be effective as to certified batches and as to portions thereof. The regulations, the legislation provides, shall prescribe no standard of identity or of strength, quality or purity for any drug different from the standard of identity, strength, quality or purity set forth for such drug in an official compendium such as the United States Pharmacopeia or similar publication. The Pharmacopeia has adopted standards for insulin.

"In explaining the purpose of the legislation and the urgency of the need for immediate action, Representative Lea of California made this statement on the floor of the House of Representatives:

"There is an emergency situation that caused our committee to act on this bill at the present time. The report before the House represents the unanimous opinion of the committee.

"The patent on insulin expires on the 23d of this month. Control of the manufacture of insulin is in the hands of the University of Toronto. The patent is owned by the University of Toronto, and manufacturers in the United States act under license from the committee on insulin of that university.

"Control of insulin quality by the University of Toronto has been most commendable. That control has been on a nonprofit, humane and scientific basis. It has required that all manufacturers comply with the standards set up by the committee on insulin in order to engage in its manufacture or sale. This control was through ownership of the patent right.

"On expiration of the patent, present control over the situation will cease and manufacturers in this country would be at liberty to manufacture and place insulin on the market in disregard of the uniform standards of quality and strength that are so essential for the protection of users of insulin.

"Over one million people in the United States are now under insulin treatment. It is estimated they are spending about $15,000,000 a year for this remedy. Ordinarily the doctor gives the patient a prescription, who after that buys from any drug store available. So far the afflicted person has had the protection that is given by a uniform standard and strength under the restrictions imposed by the owners of the patent.

"The effect of insulin is such that injury and death may result from taking too much or too little. The peril to the public that would ensue from the lack of a uniform standard would be primarily due to the variation and uncertain quality as to strength and purity unless its standardization is assured by the federal government acting through the Food and Drug Administration.

"Under the amendment here proposed to the Food, Drug and Cosmetic Act, every batch of insulin would be submitted to tests to assure its freedom from infection, its purity and strength. Each batch would be subject to approval of the Food and Drug Administration and rejected if not of a properly standardized quality. By this means all users of insulin suffering from diabetes can be assured of the quality, the standard, strength and purity of their purchases.

"The procedure required in making tests, the adoption of regulations to control such tests and the certification thereof by the Food and Drug Administration will conform to the practice that already prevails in requiring such tests, and issuing such certificates as to certain coal tar products."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis

Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis....Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend....Dec. 31, 1944

FEBRUARY, 1942

Editorials

MILITARY MEDICAL OFFICERS

No one has the right to state just how long this war will continue; no one has the right to say just how many medical officers will be needed for the vast army now being raised—these things are unpredictable; but we do know that even now there is a dire need for more medical enlistments in the various branches of the armed forces. An Army officer of high rank recently said that the Procurement and Assignment Service needed a certain number of new medical officers; some two days later he reported that the needs had been doubled, which indicates in some degree the rapid expansion of our Army.

It is true that we have thousands of enlistments and that more are coming in daily, but a casual survey of this group brings the astonishing information that of the first ten thousand enlistments too few were from men under thirty-six, for which the need is urgent right now.

Physicians of this age group should bear in mind that they already are registered by the Selective Service System and that by such registration they are subject to being called in for examination and induction into the Army. So it would seem that in the carrying out of the provisions of the laws now in effect, the medical man under thirty-six years of age has but two choices in the matter: he may enlist in the Medical Corps of the Army —and by that word we mean the armed forces of the United States—or he may take his chances in the regular draft.

This is no time for long meditation. Action is what is wanted—immediate action. It is estimated that the ultimate requirements for medical officers will reach the enormous figure of 25,000; other estimates reach as high as 35,000. Hence, it will be noted that medical men are needed—and the Army has a way of getting what it wants these days.

A second Selective Service registration will come in February. This age group will range from thirty-six to forty-four, thus adding a long list of potential medical officers to the present group. While it is the younger group that is being sought at the present time, this new age group is expected to furnish its full quota of medical officers.

The Procurement and Assignment Service already has dealt with such words as "indispensable," "dependencies," "dislocations" and "exemptions." So far as this service is concerned, these four words have been deleted from the dictionaries in official Washington. It is held that no medical man is indispensable to the degree that his place cannot be filled; that even though one has dependents, one will be paid sufficient salary to properly care for these dependents. Some complain about being dislocated. Our answer to this is that several million young men from this same age group are being dislocated, just as inconveniently as would be the medical man.

This is not a "class" war; this is a war in which every citizen of the United States is vitally concerned; it is a war for the preservation of our Nation and the various liberties its citizens now enjoy. A statement recently was made to the effect that ere the present emergency has ended *every* physician in the country will have been called upon to do his part, and it is our opinion that when that call comes it will reach us with such force as to demand immediate response.

Therefore, our suggestion to the young medical men now of draft age is that they enlist immediately; that those who will register in February make plans to do likewise; that the men in the next age group, up to fifty years of age, do some serious thinking about the matter, even to the point of deciding "what *I* will do when the time comes." It is believed that the man-power of the Nation, up to the age of sixty-five, soon will be officially enrolled; not that all this group will be called into actual combat, but that they will be enrolled and later classified into the various fields in which they may be of service.

We know of many men in industry who had reached the retirement age and had been pensioned who are now busily engaged in our defense work. Machinists, tool makers, die workers, all of whom are so direly needed, have again returned to the shops to add their part to the National Plan of Defense. Medical men who had retired, or partially retired, are now planning to go back into practice, so that they may take over the work of some of the younger group who are planning to

enter the Army. This is an *all out war;* Medicine, too, is *all out* for the duration. THE JOURNAL stands pledged to an *all out* program; we will do everything within our power to further the interests of the Nation.

Medicine has always been in the vanguard in all matters of national import; let us see to it that in this emergency we outdo ourselves; let us give the Nation every medical officer we are asked to give; let us be a most integral part in the national plan to conquer the War Lords of other parts of the world; let us render every possible aid in the program for a World Freedom. ENLIST, AND DO IT N O W!

REHABILITATION OF DRAFTEES

From the official publication *Selective Service* we learn of the plan to rehabilitate a large group of deferred registrants, in which program the medical and dental professions are to be asked to play an important role. It seems that of the first two million registrants called up for examination some nine hundred thousand were given a lowered classification because of physical defects. A careful study of this group has given the Selective Service heads cause to believe that at least two hundred thousand of this class may be made available for service.

The general plan adopted is to give the registrant with a correctable disability the privilege of being treated by his family physician or dentist in his home community, the cost to be borne by the Federal government. (Just what will be done with the registrants who may object to having these defects cared for is not stated in the report.)

Most of the defects that are expected to be remedied pertain to the teeth, the eyes, cardiovascular disorders, musculoskeletal defects, venereal diseases and flat feet. The dental group seems to be the most important, since 20.9 per cent of the rejections are from this cause. Rejections for eye defects rank second. Many of the latter group already have had eye defects corrected and are available for service. It is expected that some five thousand additional registrants will be added to the list after their visual disorders have had proper attention. In the dental group the rather amazing figure of one hundred thousand totals the number of men presumed to be made ready for service after their visits to the dentist.

Rejections because of venereal diseases totaled fifty-seven thousand; of this group it is expected that some ten thousand can be made ready for service. In the cardiovascular group, totaling ninety-six thousand rejections, it is estimated that ten thousand can be rehabilitated to the extent that they can enter service. Ear defects, nervous and mental disorders, hernias and diseases of the lungs are a group set apart; it is not expected that much can be done about these cases.

So we still have another job before us—that of rehabilitation. In the performance of this duty we shall gain a two-fold purpose—restoring to complete usefulness a large group of young Americans, and rendering an inestimable service to the health of the Nation.

PSYCHIATRIC NEEDS

For a long time the profession has been aware of the increasing need for psychiatrists; we have known of the somewhat alarming increase in the population of our hospitals for the mentally ill, both state and private; and we also have been aware that we have too few men listed in this special field of practice. It took a war, World War 1, to impress the American people and its medical profession with this fact, although it seems that the idea was not indelibly stamped into our minds.

We long have known these facts but seem to have done little about it. Now that we have another war at hand we again have the thing before us, and this time we must have the answer ready. Only a few days ago an army colonel advised the Procurement and Assignment Service that he needed *F I F T Y* psychiatrists, preferable men under the age of thirty-six! Just where the Service is to get the men to fill this order remains a question. And, if we need fifty men of this type *now,* what will be the need two or three years hence when several millions of men will have had actual war-time experiences? Many of these millions will need the attention of psychiatrists; many will necessarily be confined in institutions planned to care for mental cases—all of which means an additional complement of trained psychiatrists, and we fear we do not have enough to "go 'round."

Psychiatry long has been deemed a very much worth-while field for the young medical men. Many have expressed a desire to enter upon the study of this specialty but seem to have been unable to find facilities for such study and preparation. We, with many others of the profession, believe that too long have we neglected this field, too long have our medical schools failed to impress the importance of this work and to provide the necessary departments for its study.

Elsewhere in this issue of THE JOURNAL we mention the fact that in one of Indiana's state hospitals for the mentally ill it has been found necessary to call in local physicians to assist in caring for the inmates of that institution, and we do not believe that Indiana is an exception in this regard; we believe that other states find themselves in the same dilemma.

In some quarters psychiatry has too long been deemed a set apart specialty of medicine; that the way is long and hard; and that few are capable of successfully entering the field. We once heard the statement that no one could be a *real* psychia-

trist until he had been psychoanalyzed, and that this "operation," a most expensive one, required a matter of two years or more! Numerous successful psychiatrists have declared this to be "the bunk," all of which we believe.

We have personally known many psychiatrists. We have seen them come and go in our state hospitals and in private practice; we have observed them at work and in clinics before medical groups; we have carefully read many of their articles, and we have come to the conclusion that the best men of the groups we have known are those who possess a large measure of what we commonly term "horse sense". For several years we have read monthly articles written by a nationally-known Virginia psychiatrist, the head of a large hospital in that state. We like to read these little monthly contributions—we look forward to them because they are but homely presentations of the things that an observing physician sees in his daily routine. As we see it, the "superiority" of the psychiatrist lies in his interpretation of things we all see, but do not properly interpret.

Getting back to the subject, we need more psychiatrists; we need more young medical men to interest themselves in this great field; the war is stressing the importance of psychiatry as never before; it is up to the medical profession to fill this need.

A RIGHT DEFENDED

(This article appeared on the Secretary's Page of the December number of the *Lake County Medical News*. We deem it of sufficient importance to reproduce it herewith.—Editor's Note.)

"At the most recent meeting of the Society, a right was sustained and a privilege continued. This was the prerogative of an old organized group to inquire into the conduct of its members, examine that conduct, judge and discipline in the light of what appeared best for the total interest, honor, preservation and unity of all its members and the public it serves. The privilege of self-discipline has been an accepted and integral part of the profession for unmeasured ages, and has been granted by all others who knew of and believed in the uniformly high character of the physician and his works.

COURT UPHOLDS SOCIETY'S RIGHT

"It may have astounded some members, disturbed many others, that the Society could be even temporarily enjoined from passing upon the unprofessional conduct of a member. Out of nowhere, a legal instrument was brought in to frustrate and obstruct what has always been considered a perfectly proper action of the Society, explicitly stated in its Constitution and By-Laws. First, a restraining order to prevent the Society's action in accordance with its By-Laws was dissolved, and then a motion for an injunction was denied. The court, in dissolving the restraining order, rendered a most illuminating commentary. It deserves, very much, to be read by all interested persons. It says that old and honorable organizations are still free to look into and act upon the conduct of their members. It indicates that a person belonging to an organization, by his application and wish, must accept the laws that govern it, or be prepared to take the consequences of being negligent, disobedient or defiant in the observation of them. The regulations that have to do with the best expression and observance of ethics, and of proper conduct, are the outcome of the universal public respect and regard of physicians, who have been granted the right to regulate and discipline themselves without interference by other bodies.

"Recently it appears that individuals have decided to veer sharply from this historically grounded tradition and to invoke agencies outside the Society. Unable to abide by the laws, the practices, the precedents that the organization has set after careful consideration and deliberate action, that any one of its members should permit himself to be judged and examined by his colleagues, be that little or severe; they sought to hold their defiant stand by bringing in injunctions, restraining orders, and suits. To them, their misconduct seems justifiable, although it might cast reflection, slight and stigma upon some or all of their colleagues. The fact that the public may misunderstand and misjudge the profession as a whole does not enter into it at all. There seems to be little or no understanding of insight into how much and in what directions all physicians may be hurt in the eyes of all other people. Instead, the individual has rationalized his course by trying to demonstrate that there is discrimination, animosity, envy and that he is being singled out for unjust discipline, when there is no case. Aloof, isolated in the framework of these feelings and thoughts, any such individual is oblivious to the regards and responsibilities which are owed others (as to him in turn), owed when he signified willingness to become a member. There is threat of recourse in suits at law if he is not allowed to go on a course which is considered detrimental to the best interests of the Society and the public.

SOCIETY MUST DISCIPLINE MEMBERS

"Let it be said, in the face of all conscious and unconscious misunderstanding, that the Society was never organized to discriminate against or persecute any of its members. It should be obvious to all that the Society exists for everything good in the ideal practice of ethical conduct that has to do with maintaining the best personal relations with society; in no other way, could it justify and deserve the faith which is universally placed in it. So sacred and fundamental is this stand, that under no circumstances can any member feel that his misconduct is above and beyond the reach of his Society.

"The Society cannot live for any individual but for all; all within and outside of it. It has a tremendously complex set of responsibilities, which are due to the people who deal with it and due to those on the inside; neither can be permitted to become too large upon the scene, but must be continually and properly evaluated and harmonized.

"The Society may be congratulated upon again being permitted to exercise its right; a right that will never be in danger before a wise and judicious court. One should be reminded, because it is so easy to forget or take it as a matter of course, that once this right is disturbed, all other kinds of rights in this world are also jeopardized. The threats from within a group may be as serious as those from without and one should never forget that fact.

"Like all essential rights, this one was obtained only after struggle and can be possessed only as long as that struggle is sustained. Let it be hoped that the Society will never be so troubled again."

Editorial Notes

NEW ENROLLMENT FORM FOR PROCUREMENT AND ASSIGNMENT SERVICE

Due to constantly increasing demands on the Procurement and Assignment Service and because of the growing need of the Army and Navy for personnel, it is necessary that a new form be submitted to replace the form which recently appeared in the *Journal of the American Medical Association* and THE JOURNAL of the Indiana State Medical Association. The form will be reprinted within the very near future. Members desiring to enlist will disregard the printed form which appeared in the January number of our JOURNAL. Watch for the new form which will appear in the *Journal of the American Medical Association* in a very short time.

Special attention is directed to the article on "Recommendations to all Physicians with Reference to the National Emergency," which appears on page ninety-two.

Dr. F. T. Romberger, chairman of the Council, established a speed record in conducting the annual mid-winter session of that body. For the first time in our memory the business of the Council had been concluded before four p.m. Usually there is a last-minute rush to get the agenda cleared up before six o'clock, which reminds one of the last few days of the Indiana General Assembly.

100% SOCIETIES

CLAY COUNTY—Robert K. Webster, Secretary.
JENNINGS COUNTY—D. L. McAuliffe, Secretary.
HARRISON COUNTY—W. E. Amy, Secretary.
GIBSON COUNTY—O. M. Graves, Secretary.

A news note reports that Governor Schricker gained a matter of ten pounds during his first year of office; now we can understand why women never have run for that job!

It is announced that among the many WPA allotments recently set forth is one covering a state-wide study of the "earth works" commonly found in many sections of Indiana, and an additional fund for the improvement of some of the buildings at the Indiana University Medical Center.

A recent census report would seem to indicate that medicine is but a side line of the average drug store. The Census Bureau reports that such things as banana splits and peanut butter take in twice as much money as prescriptions. In 1939 "fountain" sales in these establishments reached the enormous total of one and one-quarter billion dollars.

We note among the list of new incorporations for January that of the Gary Medical Business Office, of Gary. This is one of three such offices maintained by the Lake County Medical Society, the others being in East Chicago and Hammond. In passing, it might be recorded that this society now has *eleven* full-time employes carrying on the work of these three offices.

An Evansville patent medicine concern gets considerable space in a southern Indiana weekly, the "story" detailing the various nostrums put out by this company. At the tail end of the boost is this sentence—"to the . . . Company and to its progressive president, . . . we say congratulations; *see their ad in every issue of the. . . .*" They do say that advertising pays!

It is not too early to begin to think about the annual convention of our State Association to be held in French Lick next September, the dates being September 29-30 and October 1st. This should be an ideal time to visit southern Indiana. A few years ago we held our meeting at French Lick early in September, finding the weather uncomfortably warm. Two years ago we met there late in October, the weather being a bit too cool for comfort. This year should find the weather man in a conciliatory mood, ready to furnish us with climatic conditions that are "just right." It is not too early to make your reservations as first-comers—you know—get the choice spots!

There will be no formal scientific exhibit at our annual meeting this year, the Council having voted to have such exhibits only when the meetings are held in Indianapolis. This action was taken because of the lack of facilities for such displays and the problem of transportation of the exhibits.

It is announced that there is a shortage of physicians in some of our state hospitals for the insane, and that in some instances local physicians have volunteered their services on a part-time basis. Dr. Johnson, superintendent of the Richmond State Hospital, has found it necessary to ask local physicians to help out in the emergency. It also is reported that there is some overcrowding in many of these institutions.

Hundreds of Hoosier medics who long have been regular attendants at the annual Memorial Day Speedway race, which has been called off "for the duration," will regret to learn that "Pop" Myers, long-time manager of this annual event, has been retired from the position he held for so many years. "Pop" had become an Indiana institution, having a state-wide as well as a national acquaintance with lovers of auto racing.

The "injunction clause" of the Amendment to the Medical Act, passed by the 1937 Legislature, is now being used as a weapon against irregular practices, the State Medical Board having taken action against several offenders about the state. One of the most recent cases is an action against one John H. Rogers, in White County, where the presiding judge issued such an injunction against the man. The charge was filed by the secretary of the Board, Dr. J. W. Bowers.

The Indianapolis Better Business Bureau continues its campaign against all forms of medical quackery and charlatanry. They now are getting after a group of those practicing without a state license of any sort. The Bureau has been of much service to the people of the state in this campaign and is to be congratulated upon the manner in which investigations are made and the findings presented to the courts.

An Indiana physician, irked by the fact that he had been denied admission to the staff of a local hospital, brought suit against that institution and several members of its medical staff in the sizeable sum of $350,000. The suit was filed in September, 1938, and each time it came up on the docket a continuance was asked, usually by the attorneys for the plaintiff. A few days ago the judge before whom the action was to be tried struck the case from the docket, ruling that the attorneys had had plenty of time to prepare for trial.

For some unstated reason the "medical experts," as well as home-talent weather forecasters and prognosticators in general, are predicting that some sort of an epidemic will prevail during the present winter, most of them electing influenza as their choice prediction. The Hoosier press seems somewhat concerned over the matter; we note references to these predictions in a dozen or more papers about the State.

We are advised that Hiel E. Crum, of Indianapolis, whose licenses to practice various forms of drugless healing had been revoked by the State Medical Board—their action having been upheld in the higher courts of the state, has appealed his case to the United States Supreme Court. This action really pleases us, since at long last we will have a *final* court decision in the matter. We will then know just what place the "little box" will occupy in the field of medicine.

Quoted from *Selective Service*, December 15, 1941:

"F.D.R" Means Just That to Kentucky Registrant

The initials "F. D. R." mean just one person to a certain Negro registrant with Campbell County, Ky., Local Board No. 21.

This registrant had asked for a reclassification and was handed a notice it had been denied. Crestfallen at first, he noted the initials and smiled.

"Hot ziggity," he exclaimed, "the President, himself, took over my case!" and he departed satisfied.

The initials were those of Frank D. Rash, Kentucky State Director of Selective Service.

It seems that there is quite some difference of opinion in the various county medical societies of the state in the matter of the new medical care program for recipients of old-age assistance. Many county medical societies have adopted the program as is; some have approved it after certain changes had been made, while still others have flatly refused to have anything to do with it. Dr. J. S. Leffel, who has served the Indiana State Medical Association for some years as chairman of the Medical Relief Committee, has become an authority in such matters and frequently is asked to talk before various civic groups. At a recent meeting of the Indiana County and Township Officials Association he took occasion to remark "the taxpayers will be denied the privilege of investigating the records of expenditures in the medical care of 120,000 indigents after January 1, 1942. This is the first time since the Boston Tea Party that the American taxpayer is denied the privilege of inspecting the records to see where his tax money goes, how much and who gets it."

Just when we had become somewhat interested in the announcement that a demand was to be made that pedestrians have a place set apart for them, just as motor cars have places along which they can operate, along comes the first of what promises to be a long-continued and oft-changing list of limitations on the use of automotive equipment. It now looks as if the coming months will see less cars and trucks in operation, so that the lowly pedestrian, after all, may be permitted the freedom of our streets and highways that is guaranteed to him by the Supreme Court of the United States.

The freshman class for the Indiana University School of Medicine will be selected early in February, rather than in May of this year. The class to be selected will be about ten per cent larger than in former years, and it is expected that there also will be an increase in the number of applicants. The plan adopted for last year will be continued, that of having a faculty committee make a personal investigation of the scholastic standing of each of the applicants, as well as submit them to personal interviews. Dr. Carl McCaskey, Indianapolis, president-elect of the Indiana State Medical Association, is chairman of the admission committee.

The Riley Hospital has been reorganized, four additional members having been named to the official Board. President Hugh McK. Landon has announced that efforts will be made to increase the endowment fund and that the Research Department will be augmented. He also states that the Riley Hospital will be more closely allied with the Indiana University Medical Center, which comprises the state-owned Long and Coleman hospitals, together with the Riley institution. The Medical Center, by the way, with its hookup with the Indianapolis City Hospital, affords teaching facilities found in but few localities in the country and is proving of incalculable benefit to the students in our School of Medicine.

Dr. John R. Frank, writing re an editorial note in a recent issue of THE JOURNAL, offers the following comment:

"Relative to your editorial note in THE JOURNAL for January about homatropine, I wish to offer a suggestion for a substitute. I have found that one drop of a one-to-one-thousand solution (.1%) of hyoscine, used once in each eye, gives a very adequate cycloplegia and between the ages of eight and forty-five or fifty can be used to replace homatropine.

"The solution is stable and, unlike homatropine, does not deteriorate. The only disadvantage is the slight dizziness and drowsiness produced by the hyoscine, but I overcome that by having the patient use a benzedrine inhaler. The major effects of hyoscine on the accommodation lasts but two days and is completely gone in about six days."

The Lake County Medical Society has established a blood bank at the Gary Mercy Hospital, opening about February first. Storage facilities have been provided for about one thousand pints of blood plasma, available for all the hospitals in the county. Freshly drawn blood will be kept for approximately four days before being treated for storage, thus making it available for emergency use. Several local professional and civic groups have become interested in the project and have already planned to have many of their members present themselves as blood donors. Excess plasma over the normal local requirements will be forwarded to the Red Cross blood bank.

The Menninger Foundation, Topeka, Kansas, headed by Dr. Karl Menninger, announces that after several years of planning it is now fully organized and incorporated under the laws of the state of Kansas. The purposes of the Foundation are stated to be four-fold:

1. Provision for psychiatric education, especially the training of young physicians in psychiatry.
2. Encouragement of research in psychiatric and psychological fields.
3. Making available psychiatric treatment for patients in the low-income bracket.
4. Prevention of mental illness, especially through development of child psychiatry and the application of psychiatric knowledge to education and child-rearing.

One of the probable curtailments in Hoosierland, brought about by the war situation and one that affects most of our citizens, is the slowing up of our state park program. Conservation-minded Hoosiers of late have evinced a great liking for the proposed plan to preserve the shore lines of certain sections of many of our streams ere they become so highly commercialized as to be of little benefit to our citizens. Colonel Lieber, long-time head of the Indiana Department of Conservation and entitled to the honor of being termed "Father" of our state park system, seems to like the Tippecanoe River as a site for one of these projects. While we agree wholly with the Colonel in this matter, yet we would urge that there are numerous, though smaller, streams within the state borders that are beauty spots, some of them being of historic worth. Many of our members would vote in favor of a stream-side park along Flat Rock, for example, others would nominate the Brandywine, others would wish to see Riley's immortal "Deer Crick" made some sort of a shrine, but we would go native and ask for a strip of Wild Cat Creek bank as a state park. That little spot, once known as Adam's Mill, with its winding road, covered bridge—all with the history of more than one hundred and thirty years, is worth preserving in the Hoosier records.

A news note from a paper published forty years ago states that there had been an outbreak of typhoid fever in Mount Vernon, Posey County, and that the chief victims were young folk. The source of the infection had been traced to a polluted water supply. Forty years is not a long span as the years go, but in that length of time medicine has taken some long strides. Even one case of typhoid fever in these days is enough to set the health department machinery in full operation, this applying to all sections of the country.

Scanning police reports in our larger centers one is impressed with the enormous increase in the theft of surgical instruments and medical kits, chiefly from the cars of physicians. Now that tire restrictions have become really drastic, it behooves medical men to add these to the list of things that must be zealously guarded. If you have not yet recorded the serial numbers on your tires and taken steps to make secure the locks on your car, it is high time to do so. Surgical instruments and medical supplies, as well as automobile tires, recently have acquired an added value and are attracting no little attention from the thieving element.

Here is a bit of much-deserved praise for the "forgotten" men, the secretaries of the county medical societies—the chaps who really make the wheels go 'round—all this without reward of any kind. We found this note in the January number of the Ohio State Medical Journal:

> This is an accolade for the man who performs one of the most important but thankless jobs in medical organization—the county society secretary.
>
> **Pat on the Back for the County Society Secretary**
>
> Year-end society elections throw a momentary spotlight on his position, but for the next twelve months he performs his duty in the relative obscurity of behind-the-scenes desk work. In some counties he is a veteran, re-elected year after year by his colleagues because they know he is willing to make personal sacrifices for the good of his profession. In other counties he is a newcomer, elevated to the post because the society members believe he can be relied on to carry out the organization's many paperwork details.
>
> For the president there is limelight, prestige, and the gratification which comes from being the key man in local medical affairs for a brief time. For councilors and committee chairmen there are questions of policy to be considered and acted upon. For the secretary there are bulletins from the State Association to be transmitted, there is correspondence with the State Association and *The Journal* to keep up, there are membership records to keep straight.
>
> In terms of telephone communications the secretary's job is like a switchboard. Through it passes the vital business which keeps the society alive. Through it the wires are kept clear and traffic is kept moving. It is not a job on which lip service is of much value. The man who fills this job deserves the complete cooperation of all members of his society.

Annals of Medical History for November, 1941, contains a twenty-five page article on "Medicine at Valley Forge," written by William S. Middleton, which is not only timely but of exceeding interest. Doctor Middleton has not written a re-hash of old and time-worn tales of Valley Forge but has derived his information from such source as the orderly books of Generals Washington, Wayne and Weedon.

The terrible conditions under which the medical men worked and the patients strove to recover is told in their own words.

Perhaps the most interesting single item is a poem entitled "Valley Forge," written and dedicated to his wife under date of April 26, 1778, by Surgeon Waldo:

"My humble hut demands a right
To have its matter, birth and site
Described first! Of pondrous logs
Whose bulk disdains the winds or fogs
The sides and ends are fitly raised
And by dove-tail each corner's brac'd;
Athwart the roof, young saplings lie
Which fire and smoke has now made dry.
Next, straw wraps o'er the tender pole,
Next earth, then Splints o'erlay the whole;
Although it leaks when show'rs are o'er
It did not leak two hours before.
Two chimneys plac'd at op'site angles
Keep smoke from causing oaths and wrangles.
Our floors of sturdy timber made,
Cleav'd from the oak and level laid;
Those cracks where zephyrs oft would play
Are tightly closed with plastic clay;
Three windows, placed all in sight,
Through oiled paper give us light;
One door, on wooden hinges hung,
Lets in the friend, or sickly throng;
By wedge and beetle's splitting force
The oaken planks are made, though coarse,
By which is formed a strong partition
That keeps us in a snug condition;
Divides the kitchen from the hall
Though both are equal, and both small,
Yet there the cook prepares the board,
Here serves it up as to a lord,
There knives and spoons and kettles rattle
While we have talk of war and battle.
There is the chat and fun of boys
Here pensive thoughts or friendships joys.
There flights of fancy youths pursue
While here I set and think of YOU!"

President's Page

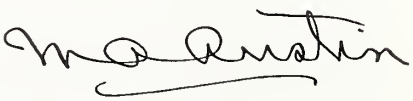
EXPLANATORY

Since Commodore Perry in 1853 brought back from the Orient three little carved monkeys, one with its eyes covered by its hands, one with its ears covered, and the third with its hands over its mouth, they have been symbolic of an idealistic type of individual who sees no evil, hears no evil and speaks no evil. But since "Jap" day, December 7, 1941, anyone of that type will be more apt to be classed as a dumbbell who *sees nothin', hears nothin' and says nothin'*. I've tried for a month to use a pen filled with soft soap, so that I could put out a page of pusillanimous puerile platitudes placating present problems, but it hasn't worked. No one has stated as yet *that our boys were killed at Pearl Harbor by bombs made from the iron sold by United States junk dealers, or that our ships were sunk by planes driven by gasoline sold by United States oil companies, or that the Jap planes were made by machine tools sold by United States factories, or that many of these factories were built with money loaned by United States bankers.* Several years ago a friend of mine connected with a trust company in New York came back disappointed after six months in Japan, where he had gone to make a loan of *two hundred million dollars.* He was humiliated because they took only one hundred million and gave Germany and England each a chance to furnish half of the other hundred million. And our women folk have also had their part in this economic problem, *for every pair of silk stockings worn by the wives, mothers, sisters and sweethearts of our soldiers and sailors gave ten pounds of scrap iron to Japan to build ships and munitions.*

The medical profession of this country will have to have its own Pearl Harbor before it wakes up to the fact that politicians and their social service fifth columnists are ready and waiting for the chance to sabotage our profession. In the good old days when get-rich-quick promoters and fake stock salesmen took untold millions from doctors, the American Medical Association Directory was considered the greatest sucker list in the country because *doctors seemed too busy to read, to think or to investigate before they made investments.* Just as illuminating have been three experiences at medical meetings recently. The first had thirteen members present out of the thirty-five in the society. During the business session a resolution passed by an adjoining county society was read which *condemned the Abell resolution* passed by the American Medical Association at their last session in Cleveland. This society then, without any discussion, voted to have their secretary draw up a similar set of resolutions and send them to the American Medical Association. One of the members then asked for my interpretation of the Abell resolution. Instead, I asked, "How many of you have read the Abell resolution?" Not a single member had read it or knew anything about it save what they had just heard. Then I asked, "What right have you to pass resolutions or condemn something you know nothing about?" They immediately voted to rescind their previous action and appointed a committee to study the Abell resolution and make a report at the next meeting. Another society with seventy-five members had fifty present at their dinner, but only twenty-five members stayed to hear the guest speaker explain the new Welfare Law. *Seven adjoining counties had been invited to send their welfare committees to this meeting, but not a single secretary answered the invitation.* After the speaker had finished, one man asked why the state organization did not sponsor some plan for the county societies. I took the floor and asked two questions, "How many of you have read the Abell resolution and know what the responsibilities are that the profession is facing in this war?" One man raised his hand. Next I asked, "How many of you have been reading in the state Journal and The Journal of the American Medical Association what has been written about the new Welfare Law?" Not a single hand was raised. So the only thing one can say is that it is a waste of time for any state organization to read and think for its members when they will not use their own time and brains to read and think for themselves.

"That truth should be silent I had almost forgot."

(Antony and Cleopatra, Act. II, Scene 2.)



RECOMMENDATIONS TO ALL PHYSICIANS WITH REFERENCE TO THE NATIONAL EMERGENCY

(The following information was received from Dr. Frank H. Lahey, chairman, Major Sam F. Seeley, executive officer, and the members of the directing board of the Procurement and Assignment Service, with the request that it be published in "THE JOURNAL."

I. MEDICAL STUDENTS

A. All students holding letters of acceptance from the Dean for admission to medical colleges and freshmen and sophomores of good academic standing in medical colleges should present letters or have letters presented for them by their deans to their local boards of the Selective Service System. This step is necessary in order to be considered for deferment in Class II-A as a medical student. If local boards classify such students in Class I-A, they should immediately notify their deans and if necessary exercise their rights of appeal to the Board of Appeals. If, after exhausting such rights of appeal, further consideration is necessary, request for further appeal may be made to the State Director, and if necessary to the National Director of the Selective Service System. These officers have the power to take appeals to the President.

B. Those junior and senior students who are disqualified physically for commissions are to be recommended for deferment to local boards by their deans. These students should enroll with the Procurement and Assignment Service for other assignment.

C. All junior and senior students in good standing in medical schools, who have not done so, should apply immediately for commission in the Army or the Navy. This commission is in the grade of Second Lieutenant, Medical Administrative Corps of the Army of the United States, or Ensign H. V. (P) of the United States Navy Reserve, the choice as to Army or Navy being entirely voluntary. Applications for commission in the Army should be made to the Corps Area Surgeon of the Corps Area in which the applicant resides, and applications for commission in the Navy should be made to the Commandant of the Naval District in which the applicant resides. Medical R.O.T.C. students should continue as before with a view of obtaining commissions as First Lieutenants, Medical Corps, upon graduation. Students who hold commissions, while the commissions are in force, come under the jurisdiction of the Army and Navy authorities and are not subject to induction under the Selective Service Act. The Army and Navy authorities will defer calling these officers to active duty until they have completed their medical education and at least twelve months of internship.

II. RECENT GRADUATES

Upon successful completion of the medical college course, every individual holding commission as a Second Lieutenant, Medical Administrative Corps, Army of the United States, should make immediate application to the Adjutant General, United States Army, Washington, D.C., for appointment as First Lieutenant, Medical Corps, Army of the United States. Every individual holding commission as Ensign H. V. (P), U. S. Navy Reserve, should make immediate application to the Commandant of his Naval District for commission as Lieutenant (J.G.) Medical Corps Reserve, U. S. Navy. If appointment is desired in the grade of Lieutenant, (J.G.) in the regular Medical Corps of the U. S. Navy, application should be made to the Bureau of Medicine and Surgery, Navy Department, Washington, D.C.

III. TWELVE MONTHS INTERNS

All interns should apply for a commission as First Lieutenant, Medical Corps, Army of the United States, or as Lieutenant (J.G.), United States Navy or Navy Reserve. Upon completion of twelve months' internship, except in rare instances where the necessity of continuation as a member of the staff or as a resident can be defended by the institution, all who are physically fit may be required to enter military service. Those commissioned may then expect to enter military service in their professional capacity as medical officers; those who failed to apply for commission are liable for military service under the Selective Service Act.

IV. HOSPITAL STAFF MEMBERS

Interns with more than twelve months of internship, assistant residents, fellows, residents, junior staff members, and staff members under the age of forty-five, fall within the provisions of the Selective Service Act which provides that all men between the ages of twenty and forty-five are liable for military service. All such men holding Army commissions are subject to call at any time and only *temporary deferment* is possible, upon approval of the application made by the institution to the Adjutant General of the United States Army certifying that the individual is temporarily indispensable. All such men holding Naval Reserve commissions are subject to call at any time at the discretion of the Secretary of the Navy. Temporary deferments may be granted only upon approval of applications made to the Surgeon General of the Navy.

All men in this category who do not hold commissions should enroll with the Procurement and Assignment Service. The Procurement and Assignment Service under the Executive Order of the President is charged with the proper distribution of medical personnel for military, governmental, industrial, and civil agencies of the entire country. All those so enrolled whose services have not been established as essential in their present capacities

will be certified as available to the Army, Navy, governmental, industrial, or civil agencies requiring their services for the duration of the war.

V. ALL PHYSICIANS UNDER FORTY-FIVE

All male physicians in this category are liable for military service and those who do not hold commissions are subject to induction under the Selective Service Act. In order that their service may be utilized in a professional capacity as medical officers, they should be made available for service when needed. Wherever possible, their present positions in civil life should be filled or provisions made for filling their positions, by those who are (a) over forty-five, (b) physicians under forty-five who are physically disqualified for military service, (c) women physicians, and (d) instructors and those engaged in research who do not possess an M.D. degree whose utilization would make available a physician for military service.

Every physician in this age group will be asked to enroll at an early date with the Procurement and Assignment Service. He will be certified for a position commensurate with his professional training and experience as requisitions are placed with the Procurement and Assignment Service by military, governmental, industrial or civil agencies requiring the assistance of those who must be dislocated for the duration of the national emergency.

VI. ALL PHYSICIANS OVER FORTY-FIVE

All physicians over forty-five will be asked to enroll with the Procurement and Assignment Service at an early date. Those who are essential in their present capacities will be retained, and those who are available for assignment to military, governmental, industrial or civil agencies may be asked by the Procurement and Assignment Service to serve those agencies.

The maximal age for original appointment in the Army of the United States is fifty-five years. The maximal age for original appointment in the Naval Reserve is fifty years of age.

(Note:—All inquiries concerning The Procurement and Assignment Service should be sent to The Executive Officer, 5654 Social Security Building, 4th and Independence Avenues, S.W., Washington, D.C., and not to individual members of the Directing Board or of committees thereof.)

Frank H. Lahey, M.D., *Chairman*
Harvey B. Stone, M.D.
James E. Paullin, M.D.
Harold S. Diehl, M.D.
C. Willard Camalier, D.D.S.
Sam F. Seeley, M.D., *Executive Officer*

EMERGENCY MEDICAL SERVICE

(The following is a copy of a memorandum mailed to all county civilian defense directors and county medical societies on January nineteenth.)

To: All County Civilian Defense Directors.
From: Dr. John W. Ferree, state chief of Emergency Medical Services.
Subject: Appointment of county chiefs of Emergency Medical Services.

1. The need for Emergency Medical Services in each Indiana community may never arise; however, each community must be prepared to take care of all civilian casualties which may be caused by sabotage, enemy bombings or air raids and the natural catastrophes that occur from time to time.

2. One of your responsibilities as County Civilian Defense Director is the setting up of such emergency services. In this respect, you should immediately appoint a *County Chief of Emergency Medical Services.*

3. In making this appointment, you should consult with the president and secretary of your local county medical society. Of necessity, your medical chief must be a physician and these officers will be able to direct you in making an appointment that will enlist the full support of your community's medical resources.

4. In the interest of efficiency in the selection of your *County Chief of Emergency Medical Services,* it is probable that, in many instances, the representative of the county medical society already on the County Defense Council will be the most logical one for this key position.

5. When you have named your *County Chief of Emergency Medical Services,* please inform me immediately by mail of your appointment. I must have his name and address as soon as possible so that more complete information relative to the organization of these services can be given to him.

6. Do not appoint a county emergency medical service advisory committee. Specific instructions will be issued soon to your *County Chief of Emergency Medical Services* as to what professional health organizations should have representation on the committee.

7. If you have already set up emergency medical services in your county, please advise me of this immediately. Also, send me the name and address of the chief so that he may receive further information on what to do.

8. As soon as I have received the names of all the County Chiefs of Emergency Medical Services, specific instructions will be sent out as to how the county should organize this emergency medical service program. Henceforth, all communications pertaining to emergency medical services will be sent directly to your *County Chief of Emergency Medical Services.*

9. For the time being there will be no chiefs of emergency medical services appointed by City Defense Council Directors except in the case of

Indianapolis and in the cities of Lake County. Consequently, City Defense Council Directors in these areas *only* will appoint local city chiefs of emergency medical services.

10. Attached is a copy of a memorandum written by Dr. H. S. Leonard, chairman of the State Emergency Medical Service Advisory Committee. This memorandum has been sent to the secretary of your local county medical society.

11. A copy of this memorandum also has been sent to the secretary of your local county medical society.

JOHN W. FERREE, M.D., *State Chief, Emergency Medical Services.*

To: All secretaries of county medical societies.

From: Henry S. Leonard, M.D., chairman of the Committee on Civilian Defense, Indiana State Medical Association, and chairman of the State Emergency Medical Service Advisory Committee.

Subject: Appointment of County Chief of Emergency Medical Services.

1. It is imperative that each community in the state be prepared to care for civilian casualties which may be caused by sabotage, bombings, air raids and the natural catastrophes which occur from time to time.

2. Mr. Clarence Jackson, director of the State Defense Council, has named Dr. John W. Ferree, state health commissioner, as state chief of Emergency Medical Services.

3. The attached memorandum has been sent to all county directors of civilian defense councils informing them that one of their responsibilities is the organization of county emergency medical services.

4. Since the actual establishment of Emergency Medical Services will entail a great deal of cooperation by members of the local county medical society, all county civilian defense directors have been notified to consult with the president and secretary of the local medical society.

5. In the very near future you should receive a call from your county civilian defense director requesting your assistance in selecting a county chief of Emergency Medical Services.

6. As chairman of the State Emergency Medical Service Advisory Committee, I suggest that you choose your local medical chief in any of the following procedures, bearing in mind that he should be a person who, because of his leadership abilities, will enlist the full support of all community medical resources.

a. Call a meeting of the county medical society and have the members elect one of their number who will assume the responsibilities of being county chief of Emergency Medical Services.

b. Appoint the representative of the county medical society who already is a member of the County Civilian Defense Council as county chief of Emergency Medical Services.

c. Appoint a member of the county medical society who has the full support of the members and who has exhibited interest in assuming this responsibility.

7. The name chosen by the county medical society should be submitted to the County Civilian Defense Director. He will make the public announcement and report to the State Chief of Emergency Medical Services.

8. If you have already set up emergency medical services in your county, please notify your county chief of Emergency Medical Services that specific instructions will be issued by the State Chief of Emergency Medical Services on how he should go about organizing the resources of his community.

9. Do not appoint a County Emergency Medical Service Advisory Committee. Specific instructions will be issued soon to the County Chief of Emergency Medical Services as to what professional health organizations should have representation on the committee.

HENRY S. LEONARD, M.D., *Chairman, Committee on Civilian Defense.*

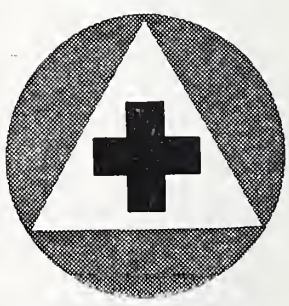
INSIGNIA FOR CIVILIAN DEFENSE WORKERS

Physicians and nurses serving in emergency medical field units will be identified by a red caduceus in a white triangle set in a blue circle. In the event of a war emergency, such as an air raid, the problem of caring for the sick and injured will be handled by the Emergency Medical Service.



MEDICAL CORPS

Volunteer nurses' aides will be identified by a red cross within a white triangle set in a blue circle. This indicates that the volunteer has been enrolled and trained by the American Red Cross for service in civilian defense.



NURSES AIDES CORPS

ARMY AND NAVY PHYSICIANS UNDER SOLDIERS' AND SAILORS' CIVIL RELIEF ACT OF 1940

ALBERT STUMP, Attorney for the Indiana State Medical Association

Reference was made in the January issue of THE JOURNAL, under the title "Some Slight Silver Lining," to the Soldiers' and Sailors' Relief Act, passed in 1940, to afford certain relief against possible litigation or the enforcement of contracts against those serving in the Army and Navy. Inquiries regarding the Act have prompted the writing of this further discussion.

The Act is divided into six articles, which will be discussed separatedy under the same titles they bear in the Act.

ARTICLE I—GENERAL PROVISIONS

Under this article is contained a statement of the purpose of the Act—which briefly is the strengthening of national defense through the development of morale. All soldiers are brought within the benefits of the Act; and the Act is made to apply in all territories subject to the jurisdiction of the United States. This latter provision obviously does not mean that the benefits are suspended if one is on an expeditionary force in some foreign country, but only that it applies to the proceedings by which civil liabilities would be enforced, which must be brought within the courts located within the territorial jurisdiction of the United States.

Where sureties or others are secondarily liable, proceedings governed by this Act with respect to the liability of soldiers or sailors, primarily, apply also to those having such secondary liability.

ARTICLE II—GENERAL RELIEF

No judgment can be entered in default against a soldier except upon an order of court which cannot be made until after appointment of an attorney to represent the defendant soldier and protect his interests; and if the soldier does not appear, the court may require a bond to indemnify him if a judgment is later found to have been taken against him wrongfully. Within ninety days after the end of the military service the judgment may be set aside and the case reopened, but such action is not allowed to impair the rights of good faith purchasers under such a judgment.

The court may stay proceedings at any time unless such military service does not materially affect the party, whether plaintiff or defendant. The court may relieve the soldier from any fine or penalty for failure to perform a contract while he is in military service, if it appears he would be damaged by such enforcement as a result of such service. The court may also stay execution of judgment or vacate attachment or garnishment during the military service and for three months thereafter. The period of military service is not included to determine date of the bar of the statute of limitations.

ARTICLE III—RENTS, INSTALLMENT CONTRACTS, MORTGAGES

Where rent does not exceed $80.00 per month, eviction cannot be had against a soldier from premises occupied chiefly for dwelling purposes by his family or other dependents, except upon leave of court. The court may stay proceedings for not more than three months if the ability of the tenant to pay is not materially affected by his military service. The government is empowered, under regulations adopted under the Act, to order allotment of the pay of the soldier to the discharge of the rent.

The preceding paragraph does not mean that the rent can never be collected, but only that the collection cannot be enforced until after the enforcement ceases to be prohibited under the Act.

Where purchases have been made on contract by a soldier before entering active service, the seller cannot terminate the contract nor regain possession because of nonpayment of installments due after active service begins, except by an order of court. The court may order repayment to the soldier of prior installments as a condition of recovery of possession; or it may stay proceedings until ability of the soldier to perform contract is not materially affected by military service; or it may make other disposition of the case to protect the interests of all parties.

Proceedings to enforce obligations created before the date of the Act, which are secured by mortgages, may be stayed as against a soldier unless ability to pay is not materially affected by military service.

Proceedings to resume possession of motor vehicles under mortgage or sales contract cannot be stayed unless fifty per cent or more of the purchase price has been paid, although the court may require an indemnifying bond to protect the soldier if the judgment later is set aside.

ARTICLE IV—INSURANCE

A soldier carrying life insurance in a legal reserve company may, during active service and one year thereafter, avoid the payment of premiums on insurance not in default by making application, on forms furnished by Veterans' Administration, to the Government. The premiums which accrue during that period are reported by the Government to the insurance companies and the Government issues to such companies certificates to cover the premiums, which certificates are held as surety for the payment of the default

premiums, with interest at the rate provided in the policy for policy loans. If the soldier dies during military service the Government is reimbursed from the proceeds of the policy. If the soldier lives and does not, within one year after the end of military service, pay the past due premiums with interest, which have been paid by the Government, the policy on which the Government has paid the premiums shall lapse and the insurance company shall pay to the Government from the cash surrender value of the policy the premiums with interest.

This article applies to not more than $5,000 of face value of insurance. It may cover all or part of one policy, or it may cover all or parts of more than one policy—but only to the extent of $5,000.

ARTICLE V—TAXES AND PUBLIC LANDS

A soldier may file, with any officer whose duty it is to collect taxes or assessments, an affidavit showing that such tax or assessment has been assessed, that it has not been paid, and that by reason of military service the ability of the soldier to pay is materially affected; and thereafter no sale of the property may be made to enforce the collection, or any other proceeding for that purpose commenced, except upon leave of court granted on application made by the tax collecting officer. The court may stay such proceedings for six months after the military service. If the property may be sold, then the soldier shall have the right to redeem in an action for that purpose brought not later than six months after the end of the service. The unpaid tax shall bear interest at six per cent, but no other penalty shall be incurred.

The above paragraph applies only to taxes falling due within the military service period on real estate occupied for dwelling, agricultural, or business purposes by a soldier or his dependents.

The collection of income tax, whether it is due prior to or during military service, shall be deferred not more than six months after the end of the military service, if the soldier's ability to pay is materially impaired by reason of the service. No interest nor penalty accrues for the deferment. The running of the statute of limitations against the collection of the tax is suspended for the period of military service and for an additional period of nine months beginning with the day following the period of military service.

A part of this article deals with rights in public lands and is not of interest in Indiana.

ARTICLE VI—ADMINISTRATIVE REMEDIES

The transfer or assignment of any right from one person to another with intent to delay the enforcement of the right by taking advantage of the Act is forbidden, and the courts are authorized in such cases to disregard the provisions of the Act. The certificate of the Adjutant General as to soldiers in the Army; of the Chief of the Bureau of Navigation as to sailors; and of the Major General Commandant as to marines, or the certificate of some officer designated by them respectively, constitutes *prima facie* evidence of the facts concerning the service of such person.

Where a person is in any service and has been reported missing, he is presumed to continue in the service until accounted for, and no period limited within the Act which begins or ends with the death of such person shall begin or end until such death is reported to or found by the War or Navy Department, or by a court or board of one of such departments, or by a court. The Act is to remain in force until May 15, 1945, unless the United States is then engaged in a war, in which event it shall remain in force until such war is terminated by a treaty of peace proclaimed by the President and for six months thereafter.

FURTHER EXPLANATION APPLIED TO THE ACT AS A WHOLE

Where the word "soldier" has been used in this discussion it is intended to include also sailor, marine, coast guard, officers of Public Health Service detailed for Army or Navy duty, as well as members of the Army of the United States.

The penalty for the violation of the Act by using false affidavits or doing other prohibited things is one year imprisonment or $1,000 fine, or both. Where periods of time are limited in the above discussion to begin at the date of termination of military service, there is always the further provision that if the soldier is in military service when the Act ceases to be in force, then the period of time extends from the date the Act ceases to be in force and not from the date of the termination of service. The periods limited are the same whether they begin with the date of the termination of the service or with the date when the Act ceases to be in force.

Attention is called to the fact that under none of these various articles are any obligations cancelled. The performance of them is only delayed. It is an Act to create a moratorium with respect to the matters to which it applies.


BUY UNITED STATES DEFENSE BONDS


(This article will be published in several sections and will be continued in subsequent issues.—Editor's Note.)

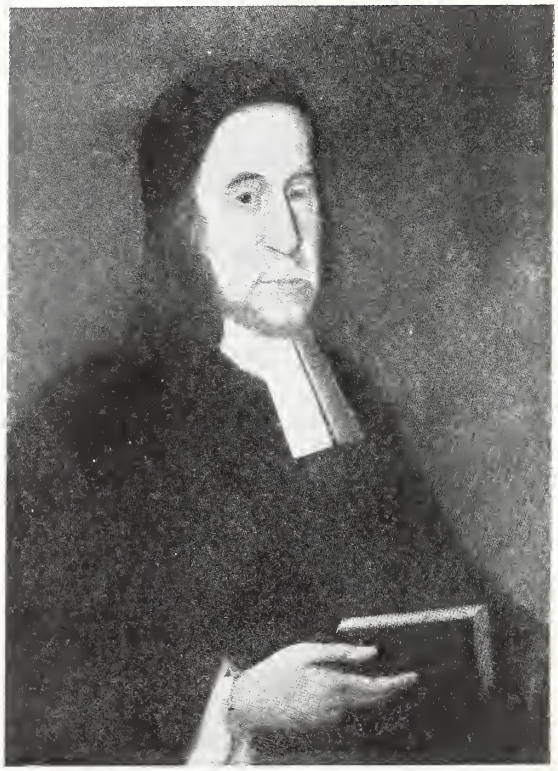
SOME EARLY AMERICAN MEDICAL AUTHORS*

EDGAR F. KISER, M.D.
INDIANAPOLIS

Very few physicians were numbered among the earliest settlers in America. Most immigrant groups brought with them a "chirurgeon" or barber-surgeon, reckoning rather on trauma and wounds inflicted by hostile natives than on ill health. Consequently, the care of the sick fell largely to the lot of laymen who by aptitude or experience were especially skilled in the art of healing. More particularly, medical service was rendered by clergymen, many of whom had had some medical training abroad with the thought of administering to the bodily ills as well as to the religious requirements of their parishoners. They were often referred to as "ministers of the gospel and comforters of the sick."

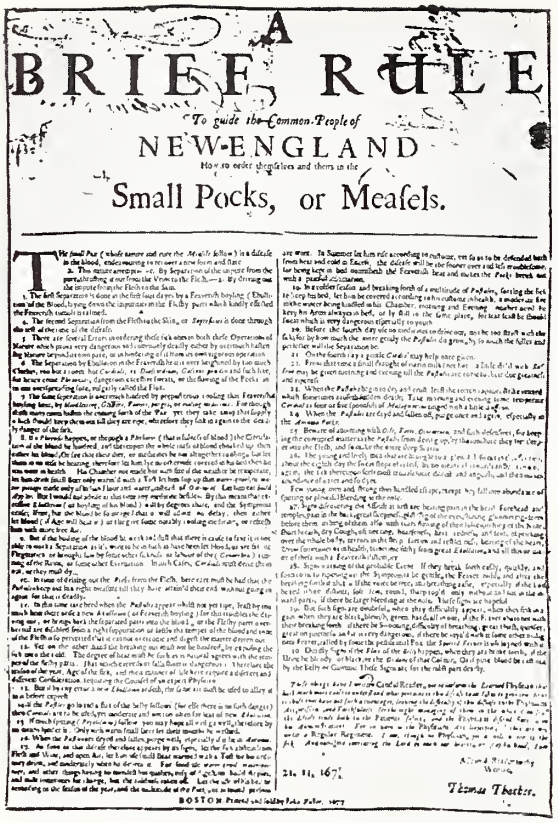
It is, therefore, not surprising to find that the first medical item published in the Colonies was not written by a physician but was the work of such a minister, the Reverend Thomas Thacher of Boston. The Reverend Mr. Thacher was born in Somersetshire, England, May 1, 1620, the son of the Reverend Peter Thacher, a Fellow of Corpus Christi College, Oxford. He received a splendid medical education in the local grammar school and was to have had his choice of Oxford or Cambridge, but instead, at the age of fifteen, he sailed for New England with his uncle, Anthony Thacher. His parents expected to follow shortly thereafter, but the untimely death of Thomas' mother upset their plans and his father never came to America. Several years after his arrival in Massachusetts young Thacher's education was entrusted to the care of Charles Chauncey, who later became the second president of Harvard College. Cotton Mather says that "Under the conduct of that eminent scholar, he (Thacher) became such an one himself . . . not unskilled in the Tongues, especially in the Hebrew, whereof he did compose a Lexicon, but so comprize it, that within one Sheet of Paper he had every considerable word of the Language. And he was skilled in the Arts, especially Logic." Whether or not the lexicon was ever printed is not known, for no copy has ever been found.

Thacher was ordained in 1644, at the age of twenty-four. His first pulpit was in Weymouth, where he continued to preach until 1669 at which time he accepted a call to the newly organized Third Church in Boston. At twenty-three he married Elizabeth Partridge of Duxbury. She bore him two daughters and three sons, of whom the youngest, Peter, became quite famous as a minister. Peter spent some time in study in England and while there is said to have "manifested great interest in medical practice." It is Henry Viets' opinion that facts concerning smallpox garnered by Peter Thacher from the writings of Thomas Sydenham and imparted by him to his father were the foundation of the latter's historic dissertation. Viets says that "The material, except for a few minor points, occurs in chapter two of *Sydenham's Observations*. Although in some instances Thacher does not follow Sydenham word for word, his statements are quite easily identified by referring to Sydenham's text. Occasionally the same sequence of words is used." Under the date 21. 11. 1677/8, Thacher's publication entitled *A Brief Rule To Guide the Common-People of New England How to Order Themselves And Theirs In The Small Poeks, or Measels* was printed by John Foster in Boston in the form of a broadside—a single sheet 43.5 cm. by 31 cm. in size. The text of the "Brief Rule" begins with a definition of the disease: "The Small Pox (whose nature and cure the measles follow) is a disease in the blood, endeavoring to recover



Reverend Thomas Thacher

* Read before the Medico-Chirurgical Society of Louisville, Kentucky, on April 29, 1941, and at a joint meeting of the Monroe County Medical Society and the Indiana Association of the History of Medicine, at Bloomington, on October 29, 1941.



A
BRIEF RULE
To guide the Common People of
NEW-ENGLAND
How to order themselves and theirs in the
Small Pocks, or Measels.

BOSTON Printed and Sold by Tho. Fleet. 1677

The first medical item published in the colonies.

a new form and state. This nature attempts—1. By Separation of the impure from the pure, thrusting it out from the Veins to the Flesh; 2. By driving out the impure from the Flesh to the Skin. The first Separation is done in the first four Days by a Feverish boiling (Ebullition) of the Blood, laying down the purities in The Fleshy parts, which kindly effected, the Feverish tumult is calmed. The second Separation from the Flesh to the Skin, or Superfixies, is done through the rest of the time of the disease."

This definition is followed by a description of the course of the disease, together with a theory of the cause of the symptoms. Then, in turn, there is an outline of treatment and a recital of the encouraging, doubtful and ominous prognostic signs. The author advises against "bloodletting, Clysters, Vomits, purges or cooling medicines," and also against "too much clothes, too hot a room and hot cordials." He prescribes a very limited diet.

Finally, there is a paragraph outlining the prodromal signs and symptoms which reads: "Signs discovering the assault at first are beating pain in the head, forehead and temples, pain in the back, great sleepiness, glistring of the eyes, shining glimmerings seem before them, itching of them also, with tears flowing of themselves, itching of the nose, short breath, dry cough, oft sneezing, hoarseness, heat, redness and sense of pricking over the whole body, terrors in the sleep, sorrow and restlessness, beating of the heart, urine sometimes as in health, sometime filthy from great ebullition and all this or many of these with a feverish distemper." The dissertation concludes with the following paragraph: "These things I have written Candid Reader, not to inform the Learned Physician that hath much more cause to understand what pertains to this disease than I, but to give some light to those that have not such Advantages, leaving the difficulty of this disease to the Physicians' Art, Wisdom, and Faithfulness, for the right managing of them in the whole course of the disease tends both to the Patient's safety, and the Physician's desired success in his Administrations: For in vain is the Physicians' ART imployed, if they are not under a Regular Regiment. I am, tho' no physician, yet a well-wisher to the sick: And therefore intreating the Lord to turn our hearts, and stay his hand. I am a Friend, Reader, to thy Welfare, Thomas Thacher."

Viets says "To the harassed people of Boston and the Massachusetts Bay Colony, Thacher's broadside must have been a profound blessing . . . . For the repeated attacks of smallpox, up to 1677, no advice was to be found in print unless some scholar, by chance, had the Latin edition of Rhazes or Sydenham. Thacher visualized the need for a handy document, one that could be easily read and widely distributed . . . . We look back on Thacher, therefore, as the best example of a preacher-physician of his time."

During the century following Thacher's broadside the physicians of the Colonies could not lament, as did the author of Ecclesiastes, that "Of making many books there is no end." The period was rather sterile. The New York Academy of Medicine, in 1926, prepared an exhibit of "Early and Later Medical Americana." Their catalogue of this exhibit lists, for the period 1677 to 1775, little more than a few pamphlets, most of which were devoted to the pros and cons of smallpox inoculation, a subject of great importance at the time. Many of these tracts were written by preachers, a few by doctors. The most important one from the pen of a physician was Zabdiel Boylston's well known *Historical Account of the Smallpox Inoculated in New England.* This copy was originally published in London and was reprinted in Boston in 1730. John Tennent's *Essay on the Pleurisy,* published in 1736, was an important contribution, as was Thomas Cadawallader's *Essay on the West-India Dry-Gripes.* In 1765, appeared John Morgan's famous *Discourse Upon the Institution of Medical Schools in America,* and in 1769, Peter Middleton's *Medical Discourse, or an Historical Inquiry Into the Ancient and Present State of Medicine.*

John Shaw Billings, writing in the *American Journal of the Medical Sciences,* in 1876, on "A Century of American Medicine," says that "At the commencement of the Revolutionary War we had one book by an American author, three reprints and about twenty pamphlets." The one book to which he refers was of extreme historic interest,

for it became the medical manual of the Colonial forces during the Revolution. It bore the title *Plain Concise Practical Remarks on the Treatment of Wounds and Fractures, to which is added, an Appendix on Camp and Military Hospitals; Principally Designed, for the Use of Young Military and Naval Surgeons in North America.* The author bore the plain, concise, practical name, John Jones. Jones was unusually well prepared to write such a book. He had a fine medical background. His paternal grandfather, Dr. Edward Jones, was a prominent Welshman who came with William Penn to America. His maternal grandfather, Thomas Wynne, was likewise a physician. His father, Evan, had made a place for himself among the physicians of Pennsylvania but had moved to New York before the birth of his son John.

John Jones (1729-1791) began the study of medicine under Dr. Thomas Cadwallader, one of the most prominent men of his day, and after a year went to Europe where he pursued his studies both in England and on the Continent. He went first to London and attended the lectures of William Hunter and MacKenzie. His closest association was, however, with Percival Pott, who was the senior surgeon at St. Bartholomew's. It seems that Pott was Jones' guiding star and influenced him more than any other of the men with whom he became associated.

In May, 1751, Jones went from London to France, and obtained a medical degree from the University of Rheims. From Rheims he went to Paris and studied anatomy with M. Petit and surgery with LeCat and LeDran at the Hotel Dieu. In April, 1752, he left Paris and went to the University of Leyden, and finally to Edinburgh. Returning to America, he established a practice in New York City, devoting himself especially to surgery, and is said to have done the first lithotomy in New York. He eventually gained the reputation of being particularly adept at performing that operation. In 1755 Jones volunteered as a surgeon in the French and Indian Wars, remaining in the service until peace was declared. He then re-established his practice in New York and when, in 1768, the Medical School of King's College was organized, he was made Professor of Surgery. His practice included some of the most prominent men of the Colonial period, Benjamin Franklin and George Washington having been numbered among his patients. He operated upon Franklin for the removal of stone, and was remembered in Franklin's will. At the outbreak of the Revolutionary War he became a surgeon and worked in that capacity until ill health compelled his retirement. He died in his sixty-third year.

The first edition of *Plain, Concise, Practical Remarks* was printed by John Holt in New York in 1775. The book is dedicated to Jones' first preceptor, Thomas Cadwallader, and is little more than a pamphlet, consisting of only one hundred fourteen pages. It contains but a single original case report, the remainder of the text being largely a compilation from foreign authors. The eleven chapter heads are as follows:

"I. Of Wounds in General"
"II. Of Inflammation"
"III. Of the Division of Wounds"
"IV. Of Penetrating Wounds of the Thorax and Abdomen"
"V. On Simple Fractures of the Limbs"
"VI. On Compound Fractures"
"VII. On Amputation"
"VIII. Of Blows on the Head"
"IX. Of Injuries Arising from Commotion"
"X. Of Injuries Arising from Fractures of the Skull"
"XI. Of Gun-Shot Wounds"

For practical purposes the second edition of Jones' work, published in Philadelphia in 1776, was bound, ordinarily, with three other brief dissertations on military surgery published in the same year: "The Diseases Incident to Armies, with their Method of Cure, translated from the Original of Baron Von Swieten"; "The Nature and Treatment of Gun-Shot Wounds," by John Ranby, Esq., Surgeon General of the British Army; and "Prevention of the Scurvy at Sea," by William Northcote, Surgeon. These three works comprised only one hundred sixty-five pages, so that even combined with Jones' treatise they made far from an imposing volume, yet they constituted the



John Jones, M.D.

UNIV. L SCHOOL OF MEDICINE

principal guide of the army surgeon in the Revolutionary War.

The first few paragraphs of the chapter on "Penetrating Wounds of the Thorax and Abdomen" will suffice to give one an idea of the text:

"Wounds which enter either cavity, may be divided into three general classes, such as are mortal, such as are necessarily hazardous, and those which are accidently so; and those distinctions are founded in the structure and office of the wounded parts, combined with the natural consequent symptoms, and the treatment of the Surgeon.

"All wounds of the heart, aorta, cerebellum, medulla oblongata and receptaculum chyli, are justly deemed mortal, because those parts are immediately subservient to life; but those of the lungs, liver, intestines, kidneys, pancreas, gall bladder, large vessels, spleen, mesentery bladder and stomach, are only hazardous in proportion to the nature of the offices they perform in the animal economy, and the degree of injury they have received; to which may be added, errors committed by the patient, or his physician, by which a greater degree of fever, inflammation, and discharge are excited.

"A short view of the nature and situation of wounded viscera, will show us how little we are to expect from any external applications, unless when some particular viscus is protruded, through a large wound of the abdomen, and of which proper notice will be taken hereafter. The great and principal attention of the Surgeon, should be directed to the prevention or diminution of inflammation; therefore after a proper dilatation of the external orifice, which in punctured, penetrating wounds is almost always necessary, the patient should immediately lose as much blood as his strength will bear, and this from a very large orifice, by which means the hemorrhage, if considerable, will be most effectually restrained. The bleedings should be repeated at short intervals, according to the nature and urgency of the symptoms; emollient glysters, cooling nitrous drinks, anodynes to assuage pain, a most rigid exact diet, consisting solely of thin diluting drinks, perfect quiet and a posture which at once contributes to the patient's ease, and the discharge of an extravagated matter, constitute the other most essential aids, which we can call in to assist nature, to whose admirable resources we must chiefly trust the rest of the cure.

"Should any portion of the intestines or omentum, the usual parts protruded, be forced out, they ought as early as possible to be reduced, by placing the patient on his back, with his hips a little elevated, and then with the forefinger of each hand, gently and alternately pressing the protruded part into its proper place, but if such a degree of strangulation should attend, as to prevent this easy reduction, a sufficient dilatation must immediately be made, by introducing a director, on which Mr. Pott's curved bistoury with a button point, may be conveyed, and the enlargement performed without any difficulty, unless from wounding some blood vessels, which a tolerable knowledge of anatomy will teach us to avoid."

The book concludes with an appendix entitled: "Some short hints on the Structure and Economy of Hospitals, particularly applied to Military Ones." Jones could not help but see in the unrest of the period, the imminence of war. The introductory statement of the appendix is of unusual interest:

"Among the variety of public errors and abuses, to be met with in human affairs, there is not one perhaps which more loudly calls for a speedy and effectual reformation, than the misapplied benevolence of Hospitals for the sick and wounded.

"We daily see persons of every rank and sex, contributing to these charities, with a spirit of liberality, which does honor to humanity; while many of them, with the most becoming zeal, are devoting their time, and sacrificing their private interest to the care of superintending the structure and management of the house; and yet, an absurd mistaken economy, has hitherto not only rendered all this pious labour and expence, in a great measure useless, but even fatal and destructive to the very end and aim of the intended purpose, that of healing the diseases of the sick poor.

"To those who are unacquainted with the subject in question, it will doubtless appear a very extraordinary assertion that there is not at present in the capital of the kingdom, a single hospital constructed upon proper medical principles; yet it is a fact very generally acknowledged by the most eminent men in the protection of Physic and Surgery in England.

"If we enquire into the causes of such glaring absurdities, we shall easily trace them to those sources of darkness and ignorance, from which most of our civil and religious abuses have originated; but how they should be continued to disgrace the improvements of more enlightened times, can only be resolved, by reflecting on the pride, obstinancy and self-interest, which are too generally annexed to ancient errors."

Jones was evidently anticipating and hoping to avoid the type of military hospital of which Benjamin Rush, shortly after the beginning of the Revolution, said: "Hospitals are the sinks of human life in the army. They robbed the United States of more citizens than the sword. Humanity, economy and philosophy all concur in giving a preference to the conveniences, and wholesome air of private houses; and should war continue to be the absurd and unchristian mode of deciding national disputes, it is to be hoped that the progress of science will so far mitigate one of the greatest calamities as to produce an abolition of hospitals for acute diseases."

Jones' simple little book was his only publication. It served, however, to perpetuate his name as one of the first of America's great surgeons.

(To be continued in the March issue.)

VOICE OF MEDICINE

CIGARETTE SMOKING

It is with mingled amazement and amusement that I scrutinize the full-page cigarette advertisements in both our state and national medical journals. One ad in the latest copy of the *Journal of the American Medical Association* admits the irritant effects of cigarette smoke to inhalers, but goes on to quote medical authority in support of the fact that their particular brand is less irritating, but irritating nevertheless.

The ad in THE JOURNAL is very similar to the one in the *Journal of the American Medical Association*, only this particular brand of cigarettes is claimed to produce less nicotine because it is slower-burning than other leading brands. It admits, however, that nicotine is the chief constituent of the smoke from a "physiological point of view," quoting medical authorities. Again we have less of some injurious substance, but some injurious substance nevertheless. By selling advertising space to tobacco companies the state and national organizations are indirectly sponsoring the use of tobacco.

Although a great proportion of medical men are smokers, I venture to say that very few of them would favor the instigation or continuation of a practice such as smoking, among their patients, if such a habit were definitely proved injurious to the health.

Recent work[1] has shown tobacco tar to contain carcinogenic substances. View this statement in the light of an ever increasing incidence of bronchiogenic carcinoma. Despite the fact that such neoplasms are now more frequently and readily diagnosed, there is apparently an increase of cancer in this region. Could the inhalation of tobacco smoke have anything to do with this increase?

H. G. Hadley[2] showed that smokers from the age of about forty have a definitely less mean expectation of life as compared to non-smokers.

Coronary heart disease, a leading cause of death in young people, is said to have become more prevalent because of our present fast living. The period during which the incidence of coronary heart disease has increased happens to coincide with the period during which tobacco has enjoyed its most widespread use. Is this just a coincidence?

English, et al.[3] have shown a direct relationship between the use of tobacco and the occurrence of coronary heart disease. Their work indicates that coronary disease seems to occur in direct proportion to the quantity of tobacco used. This is undoubtedly no coincidence.

Now, in spite of the fact that a great number of doctors are smokers, and even though full-page ads bring our journals fine revenues, isn't the allowance of such ads in our journals a slight letting down of medical ethics? Cancer and heart disease need no encouragement. Where there is so much smoke (in this case cigarette smoke) isn't there apt to be just a wee bit of fire?

I have heard that cigarette smoking had its greatest impetus during the first World War. How easily venereal diseases were controlled in the A.E.F. by Pershing's famous general orders. Could not similar general orders do much to reduce smoking in this war?

BYRON KILGORE, JR., M.D.,
Danville, Indiana.

[1] Roffo, A. H.: Principles of Carcinogenic Action of Tobacco, *Schweizenische Medizinische Wochenschrift* **71**: 549-576.

[2] Hadley, H. G.: Effect of Tobacco on Longevity, *J. Med.* **22**: (March) 1941.

[3] English, J. P.; Willius, F. A., and Berkson, J.: Tobacco and Coronary Disease, *J.A.M.A.*, p. 1327 (Oct. 19,) 1940.

UNDER THE CAPITOL DOME

STATE LABORATORY WORK INCREASES

A big increase has been reported in the work of the laboratory of the Indiana State Board of Health during the past year. During 1941, the laboratory made a total of 557,975 tests, including all types. During the preceding year the tests totaled 333,775. Included in the total for last year were 54,023 blood tests run for the Selective Service Boards of the state.

Tests for syphilis totaled 516,817. Of these, 93,471 were positive and 417,588 negative. There were 5,758 tests labeled as "others" which, it was explained, were tests in which the results were not satisfactory.

EMERGENCY MEDICAL SERVICE

Dr. John W. Ferree, who has recently been reappointed as secretary of the Indiana State Board of Health, has been named by Clarence A. Jackson, state civilian defense director, as chief of the Emergency Medical Service.

Local emergency medical councils will be appointed in each county and state. Membership in the local organizations will be selected by the local civilian defense director and officers of the local medical societies.

Dr. Ferree said that Indiana must be prepared for any emergency that might arise, and pointed out that care of health and care of injured will be one of the biggest and most important tasks in the event of any emergency, such as bombing, sabotage, or other event.

Serving with Dr. Ferree as members of the State Emergency Medical Service Advisory Committee are Dr. H. S. Leonard, of Indianapolis, chairman of the State Medical Advisory Council; H. V. Darnell of Indianapolis, secretary of the

Indiana Pharmaceutical Association; Miss Helen Teal, registered nurse, of Indianapolis, executive secretary of the Indiana State Nurses' Association; Clarence G. Piepho, of Muncie, president of the Indiana Funeral Directors Association; J. B. H. Martin of Indianapolis, administrator of the Indiana University Hospitals; and Dr. William H. Crawford, dean of the Indiana University School of Dentistry. A representative from the American Red Cross also is to be included as a member of the state council.

RESULTS OF IMMUNIZATION SURVEY

Only thirty-four percent of the children under ten years of age surveyed in seven Indiana counties had been immunized against diphtheria, and only twenty-three per cent had smallpox vaccinations, according to a preliminary report on the state-wide immunization survey being conducted by the Indiana State Board of Health.

The preliminary report pointed out that results of the surveys were encouraging in comparison with reports of scattered surveys carried out several years ago. "In general," the preliminary report said, "they reflect that a greater number of children are immunized against diphtheria and smallpox than ever before." However, it was pointed out that these figures are probably higher than the general average of the state, since it is known that active immunization programs have been conducted in several of the counties included in the preliminary survey. "In spite of the improvement over past surveys, it readily can be seen that less than half the children surveyed have had this simple protection," the preliminary report stated. A total of 14,547 children under ten years of age were included in the survey.

Of the 5,840 children under six years of age included in the total group, nineteen per cent had diphtheria immunization and nine per cent were vaccinated against smallpox. This, the report said, emphasizes the need for more attention in the pre-school age groups, and the statement called attention to the fact that approximately one-third of all diphtheria deaths in Indiana in 1940 were among children below five years of age.

The survey was started before the United States became actively engaged in the war. After outbreak of the war officials of the health board considered the value of the survey in the light of the all-out civilian defense program, to determine whether it was just a "frill" which could be eliminated for more urgent needs. The final decision was, however, that the survey is exceedingly important, and it will be continued until the state has been covered.

"One of the most valuable results of this information will be to awaken everyone to the fact that the majority of children are still not protected by immunization in spite of all the educational efforts of doctors, nurses, and teachers toward this objective," the preliminary report said.

It is estimated that in Indiana there are approximately 600,000 children under ten years of age.

SCHOOL HEALTH BULLETINS

The Indiana State Board of Health, cooperating with the State Department of Public Instruction, is sending out an important series of bulletins on various aspects of health to public school administrators and physical education teachers of the state. The bulletins are prepared by the Bureau of Health and Physical Education of the State Board of Health, and have the general subject "Health and Defense—A Way You Can Help." They are sent out at intervals of about one every two weeks.

One of the bulletins emphasizes the value of intramural athletics which permits participation in interschool contests by all the students rather than by only a few students. "Health and physical fitness are of especial importance in any period of emergency," the bulletin says. "Our schools have long been deficient in the realization of these qualities. It is imperative that more emphasis be given, and given immediately, to a program centered about development of the physical qualities of your students."

The bulletin advises that "Before the school promotes any form of vigorous activity, each participant should have a medical examination." It added that "Certain handicaps and deficiencies will restrict participation in some activities," and that "For certain quiet physical activities, such as shuffleboard and darts, an examination may not be necessary."

This bulletin insisted that "A guiding principle of first rank, which should be adopted by every school in the conduct of its athletic program, is the provision for every child to participate in a broad program of intramural play activities at least twice weekly." A suggested list of activities for intramural athletics included badminton, archery, table tennis, tennis, horse shoe, volley ball, softball, hockey, speedball, folk and social dancing, hiking, bicycling, skating, tumbling, and apparatus stunts.

Another of the earlier bulletins is devoted to medical and dental examination and insists that a comprehensive physical-medical-dental examination should be required of every student at least once in each school level (example, grades 1-3, 4-6, 7-9, 10-12). It should include at least a careful check for orthopedic and postural defects, vision, hearing, nose, mouth, throat, teeth, heart, lungs, nutrition, skin, nervous condition, and possible hernia, the bulletin said.

"Home visitation should be provided for by the school, through teachers or public health nurses, to explain the results of the examination and the need for the correction of the defects discovered," it added.

Classification of the children into three divisions was suggested: (A) average-normal, who could

participate without limitation in intramural athletics suggested in the earlier bulletin, (B) children temporarily or permanently limited to restricted activity, and (C) children offered individual or corrective activity under the direction of a physician. The bulletin suggested that "assignment to rest or to restricted or individual activity should be approved by a physician after he has consulted with the principal, the nurse and the physical education teacher."

One important admonition was contained in the bulletin. It said: "Non-medical teachers or school officers should not be permitted to diagnose or treat health disorders, but a close cooperation should be maintained between the physical education teachers and the physicians of the community so that each may understand the other and be familiar with the program and ethics of the other."

The bulletin also said, "We would like to suggest that every school in Indiana find a way to secure an examination for every child. If the school does not have a physician, or provide examination, the pupils should be encouraged to secure one as a special project in connection with the school health program for National Defense. Parents should be urged to be present at the examination."

This bulletin cited the fact (discussed in this column last month) that the National Youth Administration health education program discovered that forty-nine per cent of all the out-of-school NYA youth examined had never had a medical examination.

A bulletin directed particularly to athletic coaches and school principals condemned the practice of some basketball teams of having a common towel for use at time-outs and between quarters at games. "The common towel has been publicly and officially outlawed for many years," the bulletin said. And then it asked the coaches: "Does your school still allow a common towel to be used at athletic contests? Is this towel thrown out (unprotected, mopping up the floor as it goes) to be used by five or more boys at your basketball games at home and away from home? Is this effective health teaching?"

The bulletin added that "It is doubly important in this time of emergency that all communicable diseases be held to a minimum."

The series of bulletins will relate to a wide variety of health subjects as related to the students in grade and high schools and colleges. Officials of the health board said that no decision has been made as to how many of them will be issued; they will continue until every phase of school health has been covered.

Recommendations to Physicians with Reference to the National Emergency published on page 92.

Deaths

D. Manners Washburn, M.D., of New Richmond, died on December twelfth at the age of ninety.

* * *

George Lawrence Sandy, M.D., of Indianapolis, died on December eighteenth at the age of forty-one. He was a graduate of the Indiana University School of Medicine in 1931.

* * *

William Alvin Shobe, M.D., of Ligonier, died at the age of eighty-five on December eighteenth. He was a graduate of the Detroit Medical College in 1880. Doctor Shobe was a member of the Noble County Medical Society, was an honorary member of the Indiana State Medical Association, and was a member of the American Medical Association.

* * *

Gilbert M. LaSalle, M.D., of Wabash, died at the age of seventy-one on December tenth. He was a graduate of the Hahnemann Medical College and Hospital, Chicago, in 1895. Doctor LaSalle, who was especially interested in surgery, was a member of the Wabash County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

George Brannan Allen, M.D., of South Bend, died on December fourth at the age of fifty-three. He was a graduate of the Northwestern University Medical School, Chicago, in 1916. Doctor Allen was especially interested in gynecology. He was a member of the St. Joseph County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Beecher Johnson Terrell, M.D., of Indianapolis, was killed instantly on January fifteenth when the automobile he was driving was struck by a passenger train. Doctor Terrell was seventy-three years of age. He was a graduate of the Medical College of Indiana, Indianapolis, in 1894. He was a member of the Marion County Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Leander Hugh Conley, M.D., of Gas City, died on December eighth at the age of eighty-four. He was a graduate of the University of Wooster Medical Department, Cleveland, in 1883. He had twice served as mayor of Gas City. Doctor Conley was a member of the Grant County Medical Society, was an honorary member of the Indiana State Medical Association since 1934, and was a member of the American Medical Association. He had retired from active practice.

Miles J. Lewis, M.D., of Marion, died on December thirty-first at the age of sixty-six. He was a graduate of the Medico-Chirurgical College of Philadelphia, in 1897, and was especially interested in otolaryngology. In 1931 he served as president of the Grant County Medical Society. Doctor Lewis was a member of the Grant County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Simon E. Mentzer, M.D., of Monroeville, died in Fort Wayne on January eleventh, aged eighty. He graduated from the Medical College of Ohio, Cincinnati, in 1885 and from the Bellevue Hospital Medical College, New York, in 1894. Doctor Mentzer was a member of the Allen County Medical Society, was an honorary member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

News Notes

Dr. J. H. Crowder, of Sullivan, has been appointed county health officer of Sullivan.

Dr. B. M. Taylor, of Portland, represents the City Board of Health on the City Defense Council.

Dr. Paul V. Evans and Miss Joan Curry, both of Indianapolis, were married December twentieth.

Dr. O. A. DeLong, of Elizabethtown, has been reappointed health officer of Bartholomew County.

Dr. J. E. Nixon, of Portland, has been appointed health commissioner of Jay County.

Dr. E. E. Long, of Shoals, has been made county coroner of Martin County.

Dr. John T. Kime, of Petersburg, has been made a member of the Pike County Defense Council.

Dr. H. S. Brunaker, of Huntington, has been appointed county physician.

Dr. Ira E. Perry, of North Manchester, has been reappointed health officer for Wabash County.

Dr. Max Herschleder, of Gary, has been named as physician at the Lake County Infirmary.

Dr. George R. Douglas, of Valparaiso, has been appointed health officer of Porter County.

Dr. C. W. Atkinson, of Boswell, has been reappointed health officer of Benton County.

Dr. Elton R. Clarke, Kokomo, has been named health commissioner of Howard County.

Dr. Daniel E. Gray, of Crown Point, was reappointed physician at the Crown Point jail.

Dr. Charles F. Pectol, of Spencer, has been named health commissioner of Owen County.

Dr. Oscar Heller, of Greenfield, has been reappointed county health officer of Hancock County.

Dr. J. S. Gilkison, of Shoals, has been appointed health officer of Martin County.

Dr. Theodore J. Smith, of Whiting, has been appointed a member of the Hammond Board of Health.

Dr. Willis D. Gatch, dean of the Indiana University School of Medicine, was recently elected president of the Western Surgical Association.

Dr. J. E. Keeling, of Waldron, has been appointed county health commissioner of Shelby County.

Dr. F. W. Grayston, of Huntington, has been reappointed as health commissioner of Huntington County.

Dr. Frank Green, Jr., of Rushville, has been made physician at the Rush County Infirmary and jail.

Dr. Lyman Overshiner, of Columbus, has been made chairman of the Medical Advisory Council in Bartholomew County.

Dr. S. J. Ferrara, of Peru, has been appointed a member of the Miami County Medical Advisory Committee.

Dr. E. Briscoe Lett, of Loogootee, secretary of the Martin County Medical Society, has been appointed a member of the County Defense Council.

Dr. J. M. Fleming, president of the Elkhart County Medical Society, has been made a member of the Elkhart County Civilian Defense Council.

Dr. Larue D. Carter, of Indianapolis, has been named as head of the Procurement and Assignment Service Committee for the Fifth Army Corps Area.

The American Association of Industrial Physicians and Surgeons, and the American Industrial Hygiene Association will hold their joint Annual Convention in Cincinnati from April 13 to 17, 1942.

Dr. H. C. Wallace, of Crawfordsville, has been chosen as chairman of the Medical Advisory Committee of the Montgomery County Department of Public Welfare.

Dr. J. S. Niblick, of East Chicago, retiring president of the Lake County Medical Society, has been named director of civilian defense for the medical profession in that county.

Dr. C. E. Martin, of Lynn, and Dr. Ivan E. Brenner, of Winchester, have been made members of the Medical Advisory Committee of the Randolph County Department of Public Welfare.

Dr. H. B. Turner, of Bloomfield, has been named county health officer of Greene County, and Dr. M. S. Mount was appointed as physician for the jail and the infirmary.

Dr. Harry E. English, of Rensselaer, has resigned as a member of the Jasper County Welfare Board, since under the new medical care plan no member of a welfare board may participate in that plan.

Dr. John Bingham, of Batesville, president of the Ripley County Medical Society, and Dr. J. T. Carney, also of Batesville, county health officer, have been made members of the Ripley County Civilian Defense Council.

Dr. Frederic G. Perry, of Plymouth, has resigned the office of coroner of Marshall County and has been appointed county health officer. Dr. C. G. Mackey, of Culver, has been appointed to fill out the unexpired term of Dr. Perry as coroner.

Dr. H. C. Ruddick, of Evansville, has been appointed chairman of the Medical Advisory Committee of the Vanderburgh County Department of Public Welfare. Dr. Thomas F. Reitz, president of the Vanderburgh County Medical Society, is a member of the committee.

Dr. Henry S. Leonard, of Indianapolis, has been appointed chairman of Committee on Civilian Defense of the Indiana State Medical Association. He will represent the medical profession on the Indiana State Defense Council.

The Wayne County Department of Public Welfare has organized an advisory committee on medical aid, of which Dr. F. P. Buche, of Richmond, is chairman. Dr. William Barton, Centerville, and Dr. Allen Stamper, of Richmond, represent the county medical society.

Dr. Burton D. Myers, dean emeritus of Indiana University School of Medicine, was the principal speaker at a meeting of the Indiana Association of the History of Medicine on December thirteenth, his subject being "The History of Medical Education in Indiana."

Dr. Lowell Henderson, intern at the Indianapolis City Hospital, has received a fellowship appointment at the Mayo Clinic, Rochester, Minnesota. This appointment is for three years, beginning July first, 1942. Dr. Henderson graduated from the Indiana University School of Medicine last spring.

NATIONAL CONFERENCE ON MEDICAL SERVICE

The 1942 meeting of the National Conference on Medical Service will be held at the Palmer House, Chicago, Sunday, February fifteenth, beginning at 9:00 a.m.

The subjects to be discussed are as follows:

The Relation of the Physician to Military, Civilian and Industrial Health, by Samuel F. Seeley, M.D., Executive Officer, Procurement and Assignment Service, Washington, D.C.; Graham L. Davis, Hospital Consultant, W. K. Kellogg Foundation, Battle Creek, Michigan; John R. Nilsson, M.D., Chief Surgeon, Union Pacific Railroad, Omaha, Nebraska; and W. D. Norwood, M.D., Medical Director, DuPont Company, Elwood Ordinance Plant, Joliet, Illinois.

The Role of the State Medical Society and State and City Departments of Health in National Defense, by W. P. Wherry, M.D., President Nebraska State Medical Society, Omaha, Nebraska; W. L. Bierring, M.D., State Health Officer of Iowa, Des Moines, Iowa; and Herman N. Bundesen, M.D., President, Board of Health, Chicago, Illinois.

Rejected Selectees and Their Rehabilitation for Active Military Service, by Samuel J. Kopetzky, M.D., New York City; George Baehr, M.D., New York City; J. R. Blayney, D.D.S., Chicago, Illinois; and L. D. Redway, M.D., Ossining, New York.

The Role of the Medical, Dental, Nursing Schools and Hospitals in Anticipating the Acceleration of Training, by J. R. Darnall, M.D., Lt. Colonel, Medical Corps, Washington, D.C.; Leonard Rowntree, M.D., Chief, Medical Division, Selective Service System, Washington, D.C.; and Fred C. Zapffe, M.D., Chicago, Illinois.



Dr. Baker

Dr. Herman M. Baker, of Evansville, past-president of the Indiana State Medical Association, has received further recognition in matters pertaining to health and social relationships of the medical profession by being appointed by Governor Schricker as a member of the Indiana State Board of Health.

Drs. Ernest Rupel, of Indianapolis, and Edmund Van Buskirk, of Fort Wayne, who have served as members of the Indiana State Board of Health since 1933, were recently reappointed by the Governor.

A special grant to finance a physio-therapist of the James Whitcomb Riley Hospital for Children for a period of training in the Sister Kenny Clinic at Rochester, Minnesota, has been approved by the allocation committee of the Indianapolis chapter of the National Foundation for Infantile Paralysis. Sister Kenny's revolutionary treatment of infantile paralysis, developed over a period of thirty years, has been endorsed by *The Journal of the American Medical Association*.

Dr. Alwin M. Pappenheimer, a thirty-three-year old scientist of the New York University College of Medicine, has been awarded a prize of $1,000 and a bronze medal of the Eli Lilly Company for his work in developing a new science combining bacteriology, chemistry, physics and nutrition in the treatment of disease. This award was made at the annual banquet of the Society of American Bacteriologists, the American Association of Immunologists, and the American Society for Experimental Pathology.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The American Board of Obstetrics and Gynecology will conduct examinations at Atlantic City, June 3rd through June 9th, prior to the annual meeting of the American Medical Association. Application for admission to Group A, Part II, examinations must be on file in the Secretary's office not later than March 1, 1942. Application for re-examinations must be on file before April 15, 1942. Prospective candidates should use the new application form. These will be provided, on request, by the secretary, Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh (6), Pennsylvania.

Dr. H. O. Bruggeman, of Fort Wayne, has been chosen chief of the Emergency medical service for civilian defense. Dr. Bruggeman, who is a colonel in the United States Army Reserve, is to coordinate all health activities of Allen County for the protection of civilians and preservation of their health.

The American Congress on Obstetrics and Gynecology is set for April 6-10, in St. Louis. This is one of the newer conferences, their 1941 meeting in Cleveland having been largely attended. Details as to the program will be forthcoming at an early date, mention of which will be made in *The Journal*. Inquiries regarding this Congress may be directed to George W. Kosmak, M.D., 650 Rush Street, Chicago.

FOURTH ANNUAL CONGRESS ON INDUSTRIAL HEALTH

Sponsored by
The Council on Industrial Health
American Medical Association
January 12-14, 1942
Chicago, Illinois

The Fourth Annual Congress on Industrial Health of the American Medical Association was held in Chicago, January 12th to 14th.

In addition to the usual problems associated with the active practice of industrial medicine, a symposium on undergraduate industrial education was presented. This included papers on the value of industrial health as a separate discipline and its relationship to other clinical sciences, internships, clerkships and the occupational disease clinics. The necessity of having trained industrial physicians was stressed throughout this entire symposium for much of the success of the present defense program will depend on the procurement of trained industrial physicians.

The evening meeting was devoted to a discussion of the activities of the committees on industrial health of the various state medical societies. Doctor C. V. Rozelle of Anderson, discussed Indiana's activity.



Dr. Metcalf

Dr. Henry C. Metcalf, of Connersville, was recently appointed as a member of the Indiana State Board of Health.

Dr. Leon Gray, of Martinsville, has taken charge of the Medical Department of the Whiting Sanitarium, succeeding Dr. E. M. Sweet, who resigned.

U.S.P. CONVENTION TO RECONVENE IN CLEVELAND IN APRIL

A special meeting of the United States Pharmacopeial Convention will be held at the Statler Hotel, Cleveland, Ohio, Tuesday, April seventh. This is an adjourned meeting with the special purpose of considering the report of the Committee on Constitution and By-Laws.

AMERICAN ASSOCIATION OF OBSTETRICIANS, GYNECOLOGISTS AND ABDOMINAL SURGEONS AWARD

(1) "The award which shall be known as 'The Foundation Prize' shall consist of $150.00.

(2) "Eligible contestants shall include only (a) interns, residents, or graduate students in Obstetrics, Gynecology or Abdominal Surgery, and (b) physicians (with an M.D. degree) who are actively practicing or teaching Obstetrics, Gynecology or Abdominal surgery.

(3) "Manuscripts must be presented under a nom-de-plume, which shall in no way indicate the author's identity, to the Secretary of the Association together with a sealed envelope bearing the nom-de-plume and containing a card showing the name and address of the contestant.

(4) "Manuscripts must be limited to 5000 words, and must be typewritten in double-spacing on one side of the sheet. Ample margins should be provided. Illustrations should be limited to such as are required for a clear exposition of the thesis.

(5) "The successful thesis shall become the property of the Association, but this provision shall in no way interfere with publication of the communication in the Journal of the Author's choice. Unsuccessful contributions will be returned promptly to their authors.

(6) "Three copies of all manuscripts and illustrations entered in a given year must be in the hands of the Secretary before June 1st.

(7) "The award will be made at the Annual Meeting of the Association, at which time the successful contestant must appear in person to present his contribution as a part of the regular scientific program, in conformity with the rules of the Association. The successful contestant must meet all expenses incident to this presentation.

(8) "The President of the Association shall annually appoint a Committee on Award, which, under its own regulations shall determine the successful contestant and shall inform the Secretary of his name and address at least two weeks before the annual meeting."

Address communications to Jas. R. Bloss, M.D., Secretary. 418 Eleventh Street, Huntington, W.Va.

INDIANA UNIVERSITY NEWS NOTES

Hoosier dentists met in Indianapolis Monday, January twelfth, for a series of afternoon clinics at the Indiana University School of Dentistry and for the annual alumni dinner. Two members of the Ohio State University School of Dentistry, Drs. L. F. Edwards and Carl O. Boucher, participated in the clinics, and Dean Arthur M. Weimer, of the Indiana University School of Business, was the principal speaker at the alumni dinner, which was held at the Riley Hospital.

Miss Florence Brown, superintendent of the Rotary Convalescent Home of the Riley Hospital, and Miss Charlotte Anderson, physiotherapist at the hospital, have been assigned to take a six-month course in the Sister Kenny Clinic at Minneapolis, Minnesota. They will study the Sister Kenny method of treating infantile paralysis and will return to the hospital to train other nurses and physiotherapists.

The James Whitcomb Riley Memorial Association, endowment sponsor of the hospital, will finance Miss Brown's course. Miss Anderson will be financed by a special grant from the Marion County chapter of the National Foundation for Infantile Paralysis.

With the demand for doctors greatly increased by the war, the Indiana University School of Medicine has announced that it will select students for admission in February instead of making selections in May, as has been the custom in the past.

Dean W. D. Gatch, in announcing the moving forward of the selection period, said that it would make possible the beginning of training this summer and that the action was in line with that being taken by other medical schools of the country. Students not chosen, Dean Gatch added, would have opportunity, by reason of the earlier selection date, to apply for admission elsewhere or enter other branches of military service. Medical students have deferred selective service status.

Notification is being given of the earlier date to Purdue, Notre Dame, DePauw, Wabash, Franklin, Earlham, Hanover and other schools, so that students in those institutions may submit their credentials and prepare for appearances before the Committee on Admissions. This committee will consist of Drs. Carl H. McCaskey, chairman; Cyrus J. Clark, Matthew Winters, J. K. Berman, H. O. Mertz, C. G. Culbertson, J. O. Ritchey, D. A. Boyd, Robert A. Moore, Hugh E. Martin, L. T. Meiks, and J. D. Van Nuys—all of the faculty of the medical school at Indianapolis, and J. A. Badertscher, Paul Harmon and Edwin N. Kime of the Bloomington faculty.

Admissions will be on the augmented basis effective last year, making a ten per cent increase in the number admitted.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

THE COUNCIL

The Council of the Indiana State Medical Association convened for its midwinter meeting at 10:15 a.m., Sunday, January 11, 1942, in private dining room No. 1 of the Columbia Club, Indianapolis, with Dr. Floyd T. Romberger, of Lafayette, chairman, presiding. Roll call showed the following present:

Members of the Council:

First District _____I. C. Barclay, Evansville
Second District ____Not represented
Third District _____W. H. Garner, New Albany
Fourth District ____Not represented
Fifth District _____Not represented
Sixth District _____Samuel Kennedy, Shelbyville
Seventh District ___C. J. Clark, Indianapolis
Eighth District ____E. H. Clauser, Muncie
Ninth District _____Floyd T. Romberger, Lafayette
Tenth District _____N. K. Forster, Hammond
Eleventh District___Ira Perry, North Manchester
Twelfth District____H. L. Murdock, Fort Wayne
Thirteenth District__Alfred Ellison, South Bend

Officers:

A. M. Mitchell, Terre Haute, president 1941
M. A. Austin, Anderson, president 1942
C. H. McCaskey, Indianapolis, president-elect
A. F. Weyerbacher, Indianapolis, treasurer
E. M. Shanklin, Hammond, editor of THE JOURNAL
Cleon A. Nafe, Indianapolis, chairman, Executive Committee
T. A. Hendricks, executive secretary

The chairman read the following telegram from Dr. H. C. Wadsworth, of Washington, councilor of the Second District:

> "Had hoped to be present January 11. Impossible. I hope to see some of you in Washington June 2, 1942. We are all proud of our state association. Carry on."

The reading of the minutes of the September, 1941, meetings of the Council, held at Indianapolis, was dispensed with on the motion of Dr. Forster, seconded by Dr. Perry, as these minutes were approved as printed in the November issue of THE JOURNAL.

REPORTS OF COUNCILORS BY DISTRICTS

Short, informal reports were made by each councilor. In addition, the following remarks were made:

Dr. F. T. Romberger, 9th District—"I would like to have the advice of the Council on a little matter in regard to our Ninth District. You will notice that Monticello is designated as the place of our district meeting on May 21. White County has never had a district meeting. White County last year, in a burst of enthusiasm, asked the district to meet with them. Tremendous changes have taken place since that time. Only two physicians are practicing there now. The chairman of the district and the president of the district have sent in their resignations. Are all of you going to have district meetings in the spring?"

Dr. H. L. Murdock—"I think it would be a good idea to keep the doctors together at this time, probably as much so as at any other time."

The Council concurred in Dr. Romberger's proposal to send a copy of the resignations he has received to each county society in the district and to ask the society next in line to take the district meeting in May.

Dr. N. K. Forster, 10th District—"During the past year two meetings of the Tenth District Medical Society were held, both of which were well attended. At the fall meeting, held on October 9, 1941, the following officers were elected: President, Dr. Samuel E. Dittmer, of Kouts; Secretary, Dr. Carl M. Davis, of Valparaiso. The place for the meetings during the year 1942 has not yet been selected.

"All of the component county societies are in good condition and functioning well, with the exception of Jasper-Newton County which has been having its difficulties due to decreased numbers in its membership. Arrangements have been made to overcome this, however, and it is expected that the society will continue to function as an integral part of the State Association.

"Porter County membership has been sustained in a satisfactory manner in spite of the demands of the national situation, and regular meetings continue to be held.

"Lake County has increased its membership roll in spite of the loss of several of our men in the military forces. Death has taken but few, but those few seem to have been those we needed most. I refer particularly to Dr. Thomas W. Oberlin, who for so many years was such a staunch supporter of organized medicine and such a fine leader of medical opinion in our community as well as in the affairs of the State Association. Needless to say the others will be sorely missed because of their active participation in our medical activities.

"1942 is bound to bring many and strange changes to us all, but the Tenth District wishes to convey its sincere desire and willingness to cooperate in every manner possible toward the accomplishment of the job that lies ahead."

Dr. Forster, at the request of the council of the Lake County Medical Society, discussed the marriage license racket in Lake County, saying that a two-hour service is being given. "As I understand it, the State Board of Health has a rule that these bloods are not to be reported on for twenty-four hours. The attorney-general has ruled that there is nothing in the act that will allow that rule to go into effect. So the Lake County situation remains about the same. The Society

Council has asked that we bring this to the attention of the Council here and see if we can't get some recommendation from this Council to the State Board of Health so that some rules or methods can be adopted whereby this situation can be overcome. I will make this motion, that the executive secretary be requested to write to the State Board of Health advising that it is the desire of the Council of the Indiana State Medical Association that some steps be taken at once to formulate a method of procedure which will obviate the abuses arising out of the pre-marital blood examination law." Dr. Forster's motion was seconded by Dr. Clauser, and carried.

Dr. Ira Perry, 11th District—"I had a meeting in my district Friday night and had all my county society presidents and secretaries present. Forty-two there—a fine meeting."

Dr. Alfred Ellison, 13th District—"We have changed the method of financing our district. Formerly we collected one dollar from each member who attended the district meeting. We have changed that now so that each county society in the district is collecting fifty cents from each member when he pays his membership dues. It works very well."

District meetings were reported scheduled as follows for 1942:

First District ——Evansville, May 28, 1942
Second District ——Washington, June 2, 1942
Third District ——New Albany, May 6, 1942
Fourth District ——Aurora, May 14, 1942
Fifth District ——Terre Haute, May 1, 1942
Sixth District ——Liberty, May __, 1942
Seventh District ——Not set
Eighth District ——Anderson, —— __, 1942
Ninth District ——Monticello, May 21, 1942
Tenth District ——Not set
Eleventh District——Flora, May 13, 1942
Twelfth District——Not set
Thirteenth District——Not set

Attention was called to the time of the American Medical Association meeting in Atlantic City, June 8 to 12, 1942, and to the fact that district meetings should not conflict with each other, with the A.M.A. meeting, or with the Indiana University postgraduate course, the date of which has not yet been set.

REPORTS OF OFFICERS

Dr. A. M. Mitchell, president 1941—"Again I want to thank you for your cooperation on everything that took place last year. It was a pleasure to work with you. I wish the incoming officers every success, and I wish you success in handling the war situation."

Dr. M. A. Austin, president 1942—"I have no special report to make, save that I truly appreciate the grave responsibilities we all are facing and that I hope I can do my part in meeting the demands of the coming year."

Dr. C. H. McCaskey, president-elect—"I am glad that I am here."

Dr. A. F. Weyerbacher, treasurer, presented the following report which was compiled by George S. Olive and Company, certified public accountants:

TREASURER'S REPORT

January 9, 1942

The Council,
Indiana State Medical Association,
Indianapolis, Indiana.

Gentlemen:

We have examined the cash records of your Association for the year ended December 31, 1941. This examination was undertaken for the purpose of determining and verifying the cash transactions for the year, and of verifying the assets at the close of the year, as recorded on the records.

The results of our examinations are presented in this report, which includes: (1) text of comments; (2) statement of assets of all funds at December 31, 1941; (3) statements of receipts and disbursements of all funds, year ended December 31, 1941. A list of the statements is presented on the page following this text.

General Comments

In Exhibit A is presented an analysis of the increase in assets of the Association for the year ended December 31, 1941, showing in summary form the sources from which this increase was derived.

Details of the assets of all funds are presented in Exhibit B. We have examined the securities of the Association, and confirmed bank balances by direct correspondence with the depositories.

Details of the cash receipts and disbursements of the general fund, of THE JOURNAL of the Indiana State Medical Association, and of the Medical Defense fund, are presented in exhibits designated C, D, and E.

Yours very truly,
GEO. S. OLIVE & COMPANY,
Certified Public Accountants.

Indiana State Medical Association

LIST OF STATEMENTS CONTAINED IN REPORT ON EXAMINATION OF CASH RECORDS, YEAR ENDED DECEMBER 31, 1941

Exhibit A—Analysis of increase in assets, all funds, year ended December 31, 1941.

Exhibit B—Statement of assets, all funds, at December 31, 1941.

Exhibit C—Comparative statement of cash receipts and disbursements of the general fund, years ended December 31, 1941, and December 31, 1940.

Exhibit D—Statement of cash receipts and disbursements of THE JOURNAL of the Indiana State Medical Association, year ended December 31, 1941.

Exhibit E—Statement of cash receipts and disbursements of the Medical Defense fund, year ended December 31, 1941.

EXHIBIT A

INDIANA STATE MEDICAL ASSOCIATION
ANALYSIS OF INCREASE IN ASSETS, ALL FUNDS, YEAR ENDED DECEMBER 31, 1941

Total Assets, December 31, 1941—Exhibit B		**$60,063.99**
Total Assets, December 31, 1940		**57,883.21**
Net Increase		**$ 2,180.78**
Arising from the following sources:		
Excess of operating cash disbursements over operating cash receipts general fund, year ended December 31, 1941:		
Receipts—Exhibit C	$37,040.53	
Disbursements—Exhibit C	38,564.90	
Excess of operating disbursements	**$ 1,524.37**	
Excess of cash disbursements over cash receipts—medical defense fund, year ended December 31, 1941	**$ 2,642.47**	
Excess of cash receipts over cash disbursements, The Journal of the Indiana State Medical Association, year ended December 31, 1941	387.62	
	$ 3,779.22	
Add:		
Increase in investments:		
United States Treasury Bonds	$ 6,000.00	
	$ 2,220.78	
Less:		
Reduction in investments:		
Beachton Court Apartment Bonds	$ 40.00	
Total net increase		$ 2,180.78

EXHIBIT B

STATEMENT OF ASSETS, ALL FUNDS, AT DECEMBER 31, 1941

General Fund		
Cash on deposit—Exhibit C	$12,637.06	
Petty cash fund	200.00	
Investments:		
Indianapolis, Indiana, City Hospital Bonds	5,000.00	
Marion County, Indiana, Flood Prevention bonds	3,000.00	
United States Treasury bonds	13,000.00	
Beachton Court Apartments, Chicago, bonds evidenced by certificate of deposit	3,580.00	
Rokeby Apartment Hotel, Chicago, bond evidenced by certificate of deposit	945.00	
Total general fund assets		$38,362.06
The Journal of the Indiana State Medical Association		
Cash on deposit—Exhibit D		3,691.26
Medical Defense Fund		
Cash on deposit—Exhibit E	$ 5,010.67	
Investments:		
Marion County, Indiana, Flood Prevention bonds	2,000.00	
United States Treasury bonds	11,000.00	
Total medical defense fund assets		18,010.67
Total Assets—All Funds—Exhibit A		**$60,063.99**

EXHIBIT C

COMPARATIVE STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEARS ENDED DECEMBER 31, 1941, AND DECEMBER 31, 1940

GENERAL FUND

	Year Ended Dec. 31, 1941	Year Ended Dec. 31, 1940	Increase Decrease
CASH BALANCE AT BEGINNING OF YEAR	$14,161.43	$ 5,834.98	$8,326.45
Receipts			
Membership dues	30,224.00	31,184.00	**960.00**
Income from exhibits	5,390.00	2,865.00	2,525.00
Petty cash refund contra	300.00	.....	300.00
Orange County Medical Society on 1940 convention	233.70	.....	233.70
Indianapolis Society refund of convention expense	136.54	.....	136.54
Miscellaneous refunds	20.04	.....	20.04
Beachton Court Liquidation Trust Distribution	40.00	60.00	**20.00**
Rokeby Liquidation Trust Distribution	.....	10.00	**10.00**
Bonds matured	.....	3,000.00	**3,000.00**
Interest income:			
United States Treasury bonds	368.75	286.25	82.50
Indianapolis, Indiana, City Hospital bonds	200.00	200.00	.....
Marion County, Indiana, Flood Prevention bonds	127.50	127.50	.....
Fort Wayne, School Improvement bonds	.....	135.00	**135.00**
Total receipts	37,040.53	37,867.75	**827.22**
BEGINNING BALANCE PLUS CASH RECEIPTS	$51,201.96	$43,702.73	$7,499.23
Disbursements			
Transfer of applicable portion of dues to The Journal of the Indiana State Medical Association—Exhibit D	$ 6,428.00	$ 6,376.00	$ 52.00
Medical Defense fund—Exhibit E	2,337.75	2,328.00	9.75
Headquarters office expense	10,259.73	10,427.15	**167.42**
Publicity committee	239.48	476.44	**236.96**
Public policy	1,554.30	510.55	1,043.75
Council	6,140.66	3,260.08	2,880.58
Officers	642.79	655.81	**13.02**
Rent	500.00	500.00	.....
Annual session	4,945.26	2,976.31	1,968.95
Miscellaneous committees	1,383.49	1,779.38	**395.89**
Postgraduate study	50.82	192.70	**141.88**
Federal O.A.B. tax	57.92	58.88	**.96**
Military dues refunds	372.50	.....	372.50
Petty cash refund contra	300.00	.....	300.00
Other refunds	20.00	.....	20.00
Securities purchased	3,332.20	.....	3,332.20
Total disbursements	38,564.90	29,541.30	9,023.60
Cash Balance at End of Year *(Exhibit B)*	$12,637.06	$14,161.43	**$1,524.37**

EXHIBIT D

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEAR ENDED DECEMBER 31, 1941

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

BALANCE, JANUARY 1, 1941		$ 3,303.64
Receipts:		
Subscriptions—members—Exhibit C	$ 6,428.00	
Subscriptions—non-members	122.25	
Advertising	10,992.68	
Collections on accounts receivable	275.40	
Single copy sales	59.75	
Electrotypes	96.60	
Total receipts		17,974.68
		21,278.32
Disbursements:		
Editorial and management salaries	7,816.18	
Printing	7,092.83	
Postage	720.65	
Electrotypes	549.58	

Office rent and light	247.46	
Office supplies	459.44	
Press clippings	89.68	
Federal O.A.B. tax	52.89	
Extra help—reporting	249.18	
Advertising commissions	106.80	
Expenses—editor and editorial board	95.45	
Copyright fees	24.72	
Surety bond	20.00	
Reprints	18.00	
Advertising refund	24.00	
Sundry	20.20	
Total disbursements		17,587.06
Balance, December 31, 1941—Exhibit B		$ 3,691.26

EXHIBIT E

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS,
YEAR ENDED DECEMBER 31, 1941
MEDICAL DEFENSE FUND

BALANCE, JANUARY 1, 1941		$ 7,653.14
Receipts:		
Transfer of applicable portion of dues from the general fund—Exhibit C	$2,337.75	
Interest income:		
United States Treasury bonds	$237.50	
Indianapolis, Indiana, City Hospital bond	23.75	
Marion County, Indiana, Flood Prevention bonds	85.00	
	346.25	
Total receipts		2,684.00
		10,337.14
Disbursements:		
Attorney's retainer fee	600.00	
Malpractice fees	1,300.00	
Treasurer's bond	15.00	
Collection fees	2.10	
Printing	27.17	
U. S. Treasury bonds—par value	$3,000.00	
Premium and accrued interest	332.20	
	3,332.20	
Service on physicians defense policies	50.00	
Total disbursements		5,326.47
Balance, December 31, 1941—Exhibit B		$ 5,010.67

Dr. Weyerbacher stated that the Association was in position to invest in some defense bonds, whereupon the motion was made by Dr. Perry, seconded by Dr. Barclay, and carried, "authorizing the treasurer, in consultation with or by the authority of the Executive Committee and at the Executive Committee's discretion, to invest from current funds in defense bonds up to an amount not exceeding $5,000.00."

Dr. E. M. Shanklin, editor of THE JOURNAL—"Mr. Chairman and members of the Council. As I say about every year, you have had twelve reports from THE JOURNAL Committee since the last big meeting of this body. You probably have been advised that there will be a decided increase in the cost of publication of THE JOURNAL in 1942, about 17 per cent, which means about $2,000.00. However, we believe that the plan that we are working out at the present time will result in maintaining THE JOURNAL at its present peak, which in all due modesty I want to say is quite high, without making any great sacrifices during the year. There will be no cutting off of any departments that we have had in THE JOURNAL in the past. However, by cutting the corners, cutting out a paragraph here and there, we will be able to save a few pages of THE JOURNAL space each month, at a cost of $7.00 a page, which, by the end of the year, will mean considerable.

"I wish to state that so long as the emergency continues THE JOURNAL will be all-out for the war. We will attempt to present all emergencies as they arise. That, of course, means an occasional, and probably every month, delay in THE JOURNAL reaching your desk. The January number was almost a week late due to the fact that emergency matters were crystallizing, and we wanted to get them to you as soon as possible. THE JOURNAL was the first to present matters of national import in the medical field. I want to repeat that THE JOURNAL will be all-out for the war. We will not, however, be sloppily sentimental about anything. We will try to present all material, including scientific articles, in as terse a manner as is consistent to present them."

Dr. C. A. Nafe, chairman of the Executive Committee—"As you know, during the last year we have had a lot of problems brought to the Executive Committee, and the report has been made monthly in THE JOURNAL. Since the beginning of the war there have been rumors coming to the Executive Committee, questioning the loyalty to the United States Government of numerous of our members. I have investigated and talked with the FBI men about a lot of these rumors and I want to assure you that the only way we have any right to believe or question the loyalty of these men is when it appears in the newspaper that the man has been apprehended. I believe the councilors and the officers should use their efforts to counteract such rumors, which are very unjust to those men who happen to have foreign names. To me it has been a tragedy in a few cases. We should use our very best efforts to counteract these rumors and not repeat them except to say that they are not true."

UNFINISHED BUSINESS

Dues of physicians in military service. Upon the motion of Dr. Clark, seconded by Drs. Forster and Perry, the Council ruled that the dues of physicians in military service should be paid out of the reserve funds of the Association.

SUGGESTIONS AND PROPOSALS FOR 1942 (93RD) ANNUAL SESSION AT FRENCH LICK

1. The following general outline for the program was approved:

Monday, September 28, 1942
Meeting of health officers

Tuesday, September 29, 1942
Morning —Registration
Golf, trap and skeet shoot, and other sports
Afternoon—Council meeting
Meeting of the House of Delegates
Golf continued
Evening —Smoker and stag party
Dinner for women physicians

Wednesday, September 30, 1942
Morning —Scientific meetings.
Noon —Class and fraternity get-togethers and luncheons
Afternoon—Scientific meetings
Evening —Annual banquet

Thursday, October 1, 1942
Morning —Final meeting of House of Delegates and Council
Final scientific meeting.
Adjournment at noon

2. *Convention facilities for 1942.* Report prepared by Dr. George Dillinger, general chairman of the Committee on Convention Arrangements, was presented to the Council.

3. *Budget for 1942 annual session.* The estimated budget for the local committee's expenses of $850.00, submitted by Dr. Dillinger, was approved upon the motion of Dr. Clark, seconded by Dr. Barclay.

4. *Scientific exhibit.* Dr. Clark moved that the scientific exhibit be dispensed with for this year only. Motion seconded by Dr. Ellison and carried.

5. *Employment of professional medical stenographers.* Dr. Clark moved that the necessary professional assistance be obtained for reporting the meetings during the annual session. Motion seconded by Dr. Barclay and carried.

MEMBERSHIP REPORT

December 31, 1941

County Society	MDs in* County	Members Dec. 31, 1941	Members Dec. 31, 1940	Loss — Gain	Eligible Non-Mems.	New Members	Removed and Retired	Deceased	Ineligible
First District									
Posey	18	10	12	—2	3		3	1	1
Vanderburgh	182	138	140	—2	25	3	13	6	5
Warrick	20	12	11	1	2	1	6	1	
Spencer	20	12	15	—3	5		2	2	1
Perry	15	13	12	1			1		1
Gibson	30	28	28			1	4	1	1
Pike	11	8	10	—2	3		2		
Total	296	221	228	—7	38	5	31	11	9
Second District									
Knox	54	39	39		9		7	2	2
Daviess-Martin	32	26	26		4	1	1	1	
Sullivan	25	21	22	—1			5	1	
Greene	25	21	20	1	4			1	
Owen	11	11	8	3					
Monroe	40	35	36	—1	5	2		1	
Total	187	153	151	2	22	3	13	6	2
Third District									
Lawrence	31	22	22		3	1	6	1	
*Orange	15	14	14				1		
Crawford	10	5	2	3	5				
Washington	13	9	9		2		1		1
Scott	7	5	5				2		
Clark	27	14	13	1	9	2	3		1
*Floyd	44	37	33	4	3	2	2		3
Harrison	8	7	8	—1	1				
Dubois	25	21	20	1	4				
Total	180	134	126	8	27	5	15	1	5
Fourth District									
Brown									
*Bartholomew	41	28	28		7	3	3		3
Decatur	21	18	18		1		2		
Jackson	23	19	19		2		1	1	
Jennings	14	12	11	1	1		2		
Ripley	17	14	13	1	3		1		
Jefferson	21	18	18		1		2		
Switzerland	9	6	5	1	2				1
*Dearborn-Ohio	27	20	19	1	2	2	2	1	4
Total	173	135	131	4	19	5	13	2	8
Fifth District									
Parke-Vermillion	37	20	22	—2	9	1	5	2	1
Putnam	21	17	16	1	1	2		1	2
*Vigo	125	111	112	—1	7	2	3	2	5
Clay	18	17	17		1			1	
Total	201	165	167	—2	18	5	8	6	8
Sixth District									
Hancock	22	19	18	1	2	1	2		1
*Henry	43	38	38				2	2	2
Wayne-Union	74	59	61	—2	5	2	6		6
Rush	20	15	17	—2	4	1	1		1
Fayette-Franklin	24	19	19		1		2		2
Shelby	30	21	20	1	6	1	3		
Total	213	171	173	—2	18	5	16	2	12
Seventh District									
Hendricks	22	16	17	—1	3		1		2
*Marion	859	646	633	13	150	31	54	14	27
Morgan	30	17	18	—1	8		4		1
Johnson	21	17	16	1	3		1	1	
Total	932	696	684	12	164	31	60	15	30
Eighth District									
*Madison	96	80	74	6	7	3	6	3	3
*Delaware-Blkford	101	85	79	6	9	5	6	3	5
Jay	29	18	15	3	7	2	3	1	
Randolph	27	24	24			1	2	2	
Total	253	207	192	15	23	11	17	9	8

County Society	MDs in* County	Members Dec. 31, 1941	Members Dec. 31, 1940	Loss—Gain	Eligible Non-Mems.	New Members	Removed and Retired	Deceased	Ineligible
Ninth District									
Benton	16	12	13	—1				3	1
*Fountain-Warren	25	23	22	1	1	1	1	2	
*Tippecanoe	92	86	89	—3	3	2	1	1	1
Montgomery	41	26	28	—2	8	1	7	1	
Clinton	30	24	23	1	2		2	2	
Tipton	16	11	12	—1	3		1	1	
Boone	27	20	15	5	5	1	1		1
Hamilton	30	18	21	—3	6		3	1	2
White	11	5	4	1	6		1		
Total	288	225	227	—2	34	5	17	11	5
Tenth District									
Lake	306	241	234	7	47	17	7	8	8
Porter	28	25	26	—1	3	1	1		
Jasper-Newton	24	14	19	—5	6	1	3	3	
Total	358	280	279	1	56	19	11	11	8
Eleventh District									
Carroll	15	13	15	—2	1		2		
Cass	54	40	36	4	9	2	4	2	1
Miami	28	21	23	—2	6				1
Wabash	34	29	32	—3	1	2	5		1
Huntington	28	21	25	—4	3	1			4
Howard	48	37	38	—1	5		4	1	3
Grant	77	50	47	3	20	1	3	2	4
Total	284	211	216	—5	45	6	18	5	14
Twelfth District									
LaGrange	12	10	8	2	2				
Steuben	21	9	10	—1	11		2	1	
*Noble	30	27	25	2	1	2	2		
DeKalb	28	20	19	1	4		2	1	1
Whitley	15	11	12	—1			2		3
Allen	206	170	165	5	14	3	10	6	11
Wells	25	21	21		4	1	2	1	
*Adams	22	17	19	—2	3	1		2	1
Total	359	285	279	6	39	7	20	11	16
Thirteenth District									
LaPorte	75	57	53	4	13	2	5	1	1
St. Joseph	177	147	144	3	14	4	11	3	8
Elkhart	83	76	71	5	4	2	3	1	1
**Starke	6		3	—3	2				
Pulaski	9	5	4	1	3			1	
Fulton	16	11	13	—2	4		1		
*Marshall	34	27	28	—1	3		1	1	3
Kosciusko	22	19	20	—1	1		5		
Total	422	342	336	6	44	8	26	7	13
Summary by Districts									
1st District	296	221	228	—7	38	5	31	11	9
2nd District	187	153	151	2	22	3	13	6	2
3rd District	180	134	126	8	27	5	15	1	5
4th District	173	135	131	4	19	5	13	2	8
5th District	201	165	167	—2	18	5	8	6	8
6th District	213	171	173	—2	18	5	16	2	12
7th District	932	696	684	12	164	31	60	15	30
8th District	253	207	192	15	23	11	17	9	8
9th District	288	225	227	—2	34	5	17	11	5
10th District	358	280	279	1	56	19	11	11	8
11th District	284	211	216	—5	45	6	18	5	14
12th District	359	285	279	6	39	7	20	11	16
13th District	422	342	336	6	44	8	26	7	13
Total	4146	3225	3189	36	547	115	265	97	138

** Physicians are listed in the counties in which they hold membership; not in the counties in which they reside.*

*** Four Physicians in Starke County are members of LaPorte County.*

THE WAR

The Chairman—"We will now hear from Tom on the latest information he has brought from Washington."

T. A. Hendricks—"I stand here as a horrible example of one who volunteered. I filled out the questionnaire on Wednesday and received a call from Doctor Lahey, president of the American Medical Association and head of the Procurement and Assignment Board, on Sunday.

"We must contemplate the rapid expansion of the entire war program from now on, involving, of course, a rapid dislocation of the medical profession and the doctors. As examples, the original request of the War Department for a certain number of physicians was doubled two days ago and may be further increased any day. The immediate need is for physicians under the age of thirty-six.

"The response to the call for volunteers is very encouraging. Two thousand volunteer blanks have been returned by men under 36. The total number of volunteer slips received is 10,000. The slips of those under 36 who volunteer are sent direct to the A.M.A. to be checked. All other questionnaires that have been received are being kept at the Procurement and Assignment office.

"The Procurement and Assignment Board feels that information in regard to all this should be made known to each physician as rapidly as possible. They feel that the best way to get the information out is through Major Sam Seeley, executive officer of the Procurement and Assignment Service, contacting physicians personally, making talks. As an army officer he not only creates confidence, but he knows all the answers.

"About 3,000 letters are in the office right now that must be answered.

"At the present time 495 of these questionnaires of men under 36 have been processed in Chicago and are being returned to the Procurement and Assignment office, and those men will be called into service as soon as possible. As the A.M.A. checks these questionnaires they will be returned to the Procurement and Assignment office in groups of 50. At the present time the call is for men under 36. They must be graduates of a grade A medical school, clear in regard to all ethical requirements. They want high type men for the junior grades of lieutenants and captains.

"Buttons and certificates will be issued each volunteer. Each will have a registration number with a place for an individual's name. The idea of this button is that a great many of these men who have volunteered and have shown the genuine patriotic spirit will for some very good reason not be able to serve in the Army or Navy but must serve some place else. These buttons and certificates will show that these men have offered their services.

"One more questionnaire which is 'to end all questionnaires,' will be sent out to the entire list

of the older men and to the fellows under 36 who have not yet volunteered and must be smoked out. This will positively be the last questionnaire and probably the last chance a man will have to volunteer.

"The questionnaire in the December 27 issue of *The Journal of the American Medical Association* was essentially for the men who are available for service at the present time. Some confusion has arisen upon this point because of the editorial that appeared in the January 3 issue of *The Journal of the American Medical Association.* Frankly, there is no answer yet to a lot of questions. One is in regard to cultists. Your regular man will be called into service and his entire practice may be left open to cultists. There is no answer to that question by the Board as yet. If anyone has any practical suggestion as to what might be done in those cases, I feel such suggestions will be appreciated by the Board.

"In the final analysis the job will be to dislocate as little as possible but as much as necessary. The idea is to get all men under 36 who are not essential or who can be replaced. In regard to base hospitals, younger men should be made available immediately for military service with the understanding that when the unit is called into active service they will be assigned to that unit. No one should stand back at this time under the guise that he will go with the hospital unit later on."

Captain Glen W. Lee—"In this matter of deferments I want to set you straight. We have, as of January 1, received instructions to classify in 1-A every medical student who is in his junior or senior year or first year of internship and who has not received his commission or made application for a commission in the Medical Corps of the Army or Navy. The student, in consideration of securing such a commission, is assured that he will be allowed to complete his medical training and one year of internship before being ordered to active duty. Deferment in Class 2-A is no longer authorized for any third or fourth year medical student or intern if he is otherwise available and found physically qualified. Third and fourth year medical students and interns who are rejected after applying for commissions may be classified in any deferred classification to which their status or disability which prevented their securing a commission entitles them. First and second year medical students and those who have been accepted as students in a medical school may continue to be deferred in Class 2-A."

Dr. N. K. Forster—"Are there any tax and mortgage exemptions for those in service?"

Albert Stump, attorney for the Indiana State Medical Association, answered this question briefly at this time. (See the article by Mr. Stump on pages 95-96 of this JOURNAL for full information.)

PHYSICIANS' UNIVERSAL MILITARY SERVICE

The chairman here presented a "Permanent Plan for Physicians' Universal Military Service."

Following discussion, Dr. Clark made the motion that "the chairman of the Council appoint a committee to study the plan here proposed by the chairman, to make such deletions or additions as may be deemed necessary, and to submit it to the Council or the Executive Committee at some future meeting. All members of the Council shall be ex-officio members and shall send any suggestions they might have to the committee appointed." This motion was seconded by Dr. Clauser and carried.

The chairman appointed the following committee to study this plan: Dr. Clark, chairman; Dr. Ellison, and Dr. Clauser.

CIVILIAN DEFENSE

Civilian defense was discussed from the standpoint of what has already been done in several counties.

NEW BUSINESS

1. *Contract with editor of* THE JOURNAL. Dr. Clark moved that the Council sign the formal contract, prepared by the attorney of the association, with Dr. Shanklin, editor of THE JOURNAL. Motion seconded by Dr. Ellison and carried.

2. *Secretaries' Conference, January 25.* Dr. R. L. Hane, chairman of the Committee on Secretaries' Conference, suggested, in view of the fact that the Secretaries' Conference this year will be very largely devoted to matters of defense, and with General Lewis Hershey and Major Sam Seeley on the program, that the various M-Day committeemen be invited by the State Association to have dinner gratis at that time. Dr. Clark made the motion that "the chairmen of the county M-Day Committees be invited to have free dinners at the Secretaries' Conference." Motion seconded by Dr. Forster and passed.

Dr. Hane asked the councilors to apprise the members of their districts that the Secretaries' Conference is open to all members of the State Association.

Dr. Ellison moved that the surrounding state medical society officers and officers of the American Medical Association be invited to attend the Secretaries' Conference. This motion was seconded by Dr. Clark and carried.

3. Dr. Perry's suggestion that the Study Committee on Aid to Needy Physicians be dismissed as it had finished its work was overruled by the Council.

4. *Nominations for Editorial Board.* Dr. Murdock nominated Dr. Harry W. Garton of Fort Wayne.

Dr. Clark nominated Dr. Edgar F. Kiser and Dr. Ernest Rupel, both of Indianapolis.

Dr. Romberger nominated Dr. John L. Arbogast, of Lafayette.

Dr. Clauser nominated Dr. N. K. Forster, of Hammond.

Dr. Barclay moved that nominations from the floor cease and that other nominations be sent in

by mail. This motion was seconded by Dr. Clark and passed.

ELECTIONS FOR 1942

Dr. Clark moved that the Council go into executive session and proceed with the last order of business, the election of two members of the Executive Committee and a chairman of the Council for 1942. Taken by consent.

1. *Executive Committee members for 1942.* Dr. Clark moved that Dr. C. A. Nafe and Dr. E. O. Asher, the present members, be re-elected for 1942. Motion seconded by Dr. Barclay and carried.

2. *Chairman of Council.* Upon the motion of Dr. Clark, seconded by Dr. Forster, Dr. F. T. Romberger was unanimously re-elected chairman of the Council for 1942.

LUNCHEON

The Council recessed for luncheon.

The chairman read the following telegram received from Dr. Olin West, secretary of the American Medical Association, who had been invited to the Council meeting:

> "Regret very much that because of disabling illness of four of our key men and because of other circumstances beyond my control it will not be possible for me to go to Indianapolis on January eleven. Please present my regrets to the members of the Council."

The following guests and committee chairmen were present and gave brief reports on the activities of their offices:

Dr. F. S. Crockett, member of the Legislative Committee of the A.M.A. and delegate to the A.M.A.

Dr. H. G. Hamer, delegate to the A.M.A. and chairman of the Bureau of Publicity.

Dr. George Dillinger, delegate to the A.M.A. and general chairman of the Committee on Convention Arrangements.

Dr. D. F. Cameron, delegate to the A.M.A.

Dr. Larue Carter, Indiana representative on the Medical Advisory Board, Fifth Corps Area.

Dr. H. S. Leonard, chairman, Civilian Defense Committee, Indiana State Medical Association.

Capt. Glen W. Lee, director, Medical Division, Indiana Selective Service System—"We are changing our Selective Service examination set-up which will markedly decrease the load on the local board examiners as to time and the amount of work they will be required to do. That likewise applies to the medical advisory boards. This is being done in anticipation of the fact that we will have considerably fewer physicians in private practice and the men left at home are going to have a greater load to carry in civilian practice."

Dr. C. R. Bird, chairman, M-Day Committee—"I wasn't at the Council meeting. I don't know what Mr. Hendricks may have told the members of the Council. A great deal of confusion exists among the medical profession of the state as to the import of this blank in the state and A.M.A. journals—whether or not individual doctors should fill out this blank. I think the answer to that is that all men under 36 should fill it out immediately. The need for first lieutenants and captains has jumped from 1,400 three weeks ago to 2,900 at the moment. That means that the acceleration of the formation of the army is going to go on very rapidly. Before the end of this year we will have an army of four or five million men, which means a tremendous lot of medical officers will be needed. It is important for every man of military age, every man under 36, to get his name before the Procurement and Assignment Service now. I think that before very long every man who can possibly be spared from civilian life is going to be needed by the armed services and other services, and I suppose that exemptions will be reduced to a minimum. The need is urgent and we might as well get ready for it. Many men are calling and coming in to see about what they should do. My idea is that the man who gets in now, especially if he is qualified in some special way, is going to get a better assignment than he will get later on when doctors are going to be wholesaled. I think if you would just take this word back to your districts—if a man isn't 36 or under, he shouldn't fill out the blank at the moment, but all men who are under 36 should fill out this blank immediately."

John W. Ferree, secretary, State Board of Health—"Routine matters at the State Board of Health are rapidly giving way to nothing but efforts in the war situation. We have many difficult problems. We feel, however, our main job now is to handle the public health problems in the state in such a way as to keep the maximum number of men and women at their respective jobs the maximum number of hours. We must lose just as little time as possible in production and the men in the armed forces must suffer as little incapacity from disease as possible. To accomplish this requires an approach from several standpoints. There are four things you can give a lot of support to locally through the county societies in your districts:

"1. Communicable disease control programs. This is not in as satisfactory a status as we should like for it to be. . . . Smallpox and diphtheria immunization are two measures that should be constantly urged upon the public.

"2. The nutrition program. Support of this will be reflected in increased resistance to disease and increased efficiency in performing daily tasks. Productive capacity will rise accordingly.

"3. Venereal disease control programs. One phase of this is the problem of prostitution since it constitutes one big reservoir of infection. The national policy has been fixed. Regardless of any of our personal opinions on the matter as to segregation and toleration of prostitutes, it would be well for us to follow out the program laid down by the federal agencies—repression of prostitution.

. . . It is going to take the support of the medical profession, backing our civil officials, if the thing is going to be brought under reasonable control.

"4. The emergency medical services. In some communities you have gotten off to a fairly good start on this. There will be material from the State Defense Council office coming through very shortly on that. . . . We are very fortunate in having Doctor H. S. Leonard as the Chairman of the Advisory Committee on Emergency Medical Services here on the State Defense Council.

"We appreciate very much the support of the medical profession in our various public health programs this past year. I want to assure you that the State Board of Health realizes fully that it has a big job on its hands in the days to come. We will need every bit of assistance you can give us. On the other hand, you may depend on it that we will do our best to back you to the very best of our abilities in any of the many tasks that may come."

Doctor Howard B. Mettel, Chief of the Bureau of Maternal and Child-Health of the Indiana State Board of Health, and Acting Director of the Division of Services for Crippled Children of the Indiana State Department of Public Welfare, gave the following report:

A. Bureau of Maternal and Child Health

"Doctor Ferree has just presented the over-all picture describing the activities of the Indiana State Board of Health. Naturally, the report briefly included all bureaus of the Indiana State Board of Health. My report concerns the Bureau of Maternal and Child Health, and is only to augment Doctor Ferree's remarks.

"We are attempting to carry on the educational and demonstrational activities of the Bureau, which has been established since 1936. Early indications are that the requests being received from local county medical societies and local organizations interested in the field of public health are going to demand more active child care services than we have had during the past ten years. These requests are for the formation of maternity clinics and well-child conferences. The Bureau of Maternal and Child-Health is very receptive to these local demands, since it realizes the increased need for preventive medical services on a group basis. This fact, together with the anticipated shortage of physicians, especially in the rural areas of the state, will make this type of health service effective in the field of preventive medicine.

"The Council is to be assured that the conduct of these health services will be of the type which will not interfere with the private practice of medicine. These conferences are preventive in nature, and not established for the care of sick mothers or children.

"The Bureau is receiving an increased number of requests from county medical societies for the establishment of maternity nursing services for home deliveries. These demands will be met as soon as qualified maternity nurses become available. The shortage of this type of personnel is extremely acute.

"In accordance with the action of the House of Delegates at the September, 1941, meeting of the Indiana State Medical Association, the Bureau will be prepared to pay local physicians for part-time services in the operation of the above type of health services.

"In addition to the foregoing requests, we are receiving many inquiries concerning the organization of volunteer workers in the field of child care, which includes such important activities as recreational facilities and programs, day nurseries, etc."

Doctor Mettel then briefly discussed the expansion of the incubator program, which is a part of the program for the better care of the premature infant. He showed a map giving the locations of the twenty official premature stations over the state, and pointed out where local agencies and groups had built incubators for their own hospitals.

B. Report of Division of Services for Crippled Children of the Indiana State Department of Public Welfare.

"On January 1, 1941, there were 3,204 cases that had been approved for services under this division. During the year 1941, 810 cases were added and 422 cases were closed; thus, on December 31, 1941, there were 3,592 cases open for services.

"The 422 cases were closed for the following reasons:

	Maximum Improvement	152
	Attainment of Age Twenty-one	57
a	Financial Ineligibility	53
b	Request for Discontinuance of Services	48
	Moved from State	33
c	Death	26
d	Other Causes	53

a The great number of cases that were closed for this reason is due to the improved financial status manifested in the state as a whole for the year 1941, and represents in these cases a change in the financial status of the situation existing in the family at the time the case was accepted and approved for services.

b Included in this number are cases which were closed at the request of the parents because of increased income, because of desire to have their children cared for locally, or because of unwillingness to grant permission for operative procedures.

c A portion of those children whose cases were closed because of death, died from conditions other than the condition for which they were accepted for services under this program, having died in their own community rather than at the hospital center at which treatment for their crippling condition was being given.

d Included in this group are those cases which were closed because they were found to be ineligible for such services from a diagnostic viewpoint after having been accepted, as well as cases which were discharged from services because their conditions were unimprovable or because their mentality was such that they required custodial care.

In the year ended December 31, 1941, approximately 3,600 children received services under this program (this number is larger than the number shown as open due to the fact that a considerable portion of the cases which were discharged during the year also received care during the same year). Of this number approximately 2,850 received their services at the Indiana University Medical Center; 400 at the South Bend Medical Center; and the remaining 350 at the Fort Wayne Medical Center.

"At the end of the year 1941 the Indiana State Register for Crippled Children included names of 8,532 children on whom diagnoses had been obtained.

"In February, 1941, an additional physical therapist was added to the staff and placed in the Fort Wayne Hospital Center to assure adequate physical therapy to all cases receiving care at that center.

"Pediatricians were added to the staffs of the hospital centers at Fort Wayne and South Bend, effective October 1, 1941, in order to assure each child coming under the program of services for crippled children at these centers an adequate physical examination and necessary pediatric services at no additional cost to the county departments.

"The Division of Services for Crippled Children, like all other organizations, has been handicapped by resignations and inability to replace qualified professional personnel. This is especially so in our South Bend Center, where we have not been fortunate enough to be able to replace our physical therapist. We are still in need of one or two qualified medical social workers. It is hoped that these positions can be filled within the next few months."

Albert Stump, attorney for the Indiana State Medical Association—"During the past year no malpractice cases have been lost. Juries are still friendly toward the medical profession. Since 1927, out of all the cases which had the defense handled through the State Association, there have been only three cases in which the jury returned verdicts against the physicians, and in one of these cases the Appellate Court reversed the verdict on appeal. I am not sure as to the number of settlements that have been made where the State Association was furnishing the defense, but I recall only three. Since juries must be drawn from the general public, the results would indicate that the public still has a very friendly interest in the physicians."

Dr. Norman M. Beatty, co-chairman, Legislative Committee—"The Committee on Public Policy and Legislation, as far as we know, will have no state function this year, unless we have a legislative session. . . . We find the A.M.A. legislative bulletins very interesting. . . . We are very cognizant of the problems of Dr. Leffel and his committee."

Dr. J. William Wright, co-chairman, Legislative Committee.

Dr. R. L. Hane, chairman, Committee on Secretaries' Conference, called attention to the Secretaries' Conference which will be held in Indianapolis on January 25 and asked the councilors to extend an invitation to the members of their districts to attend this meeting. He thanked all those who have contributed so much to the success of the programs of the committee during his term as chairman of the Committee on Secretaries' Conference and mentioned the fact that following the coming conference he will no longer be a member of the committee, for he is no longer a county society secretary.

Dr. C. V. Rozelle, chairman, Committee on Industrial Health—"I have nothing particular to report at this time; no further work on the part of this committee. I might state that I am on my way to Chicago to attend the fourth annual Congress on Industrial Health and probably will have some ideas from that, along which lines we will extend the work of this committee.

"The work of this committee is something which is very important in view of the events of the last few weeks. Each county society should see that a Committee on Industrial Health is appointed. The names of these committeemen should be sent in to Dr. Carl Peterson at the A.M.A. . . . Each doctor should see that each worker is on the job every hour of every possible day. Workmen should be impressed with the importance of their being on the job every day. I hope to have something to report when I come back from this convention."

Dr. Alfred Ellison, chairman, Committee to Study Cultists and Irregular Practitioners—"This committee is still hopeful that this Council together with the House of Delegates of the Association will eventually see fit to instruct our Legislative Committee to go before the Legislature and ask them to pass legislation which will give the State Board of Medical Registration and Examination enough money to enforce properly the law regarding the practice of the healing art. Indiana is infested in every area with flagrant violators. We have been so lax in this matter that our state has been the prey of these imposters. For the medical profession to continue to condone this situation is sad and unfortunate. The annual registration of everyone engaged in the healing art in our state, with a nominal fee of even $2.00, would provide ample funds so that our state could be freed from these offenders. Such a law would likewise provide an annual invoice or roster of

all such practitioners, so that some fairly accurate information about them could be established."

Dr. J. S. Leffel, chairman, Medical Relief Committee—"I have many things that I could report. Last August, due to the fact that I was chairman of the Relief Committee, I was appointed as a member of the Advisory Committee of the State Welfare Board, along with Dr. John Ferree and seven or eight other people. This all concerned the welfare law which was enacted at the last Legislature and which is written on about two or three pages. The State Welfare Department got the *Medical Aid Manual* out to explain it! I don't know what I should report here today, but I want to call your attention to two or three things. In the first place, the Legislature wrote into this law that the county welfare boards 'may' and not 'shall' furnish medical and hospital care to the recipients of old age and dependent children assistance. I think as the law was written originally, the blind received state aid so far as medical care was concerned. The trustees furnished this care up until now, and, according to the state statistician, this cost the local taxpayers around $500,000 in the state of Indiana. The State Welfare Department attempted, and I have no doubt that they have succeeded, in setting up a fund of $1,500,000 to take care of these people. This money would be distributed by one of three options. The essential differences are that the Federal government would participate to the extent of 50 per cent in Option 1, to a lesser per cent in Option 2, and no per cent in Option 3. This was to take effect January 1, 1942. Up to date perhaps one dozen counties have sent in plans. There are two counties that I know about who have refused to cooperate with this program. Of those plans sent in they all anticipate using Option 3. True, one or two of them may use Option 1. It appears that when the thing gets operating they will be using Option 3, which means that there will be no federal participation in the payment of this medical care. If there is no federal participation in the program it means that local taxpayers will pay 40 per cent. Argument for the program was that you would relieve the local taxpayer and pass the load on to the Federal government. Under the plan as it is working out, the local taxpayers will pay $600,000 instead of $500,000 as under the Trustee System.

"If the Legislature had met this January instead of last January they never would have passed such a law as this, for since last January we have had 'Pearl Harbor' and all the things that have followed it. If you have followed the speeches of Roosevelt and Churchill, the kernel of every one of those speeches is that it is the duty of every man, woman, and child to accomplish one thing—that is, to win the war. I think that means every doctor and every recipient of a Federal grant.

"Already I have been asked into conference with taxpaying organizations in the state of Indiana with reference to this program. I was asked into a conference with the State Farm Bureau. To me the doctors in Indiana can take one of two attitudes. They can take the attitude of Abe Martin, who suggested during the first war, 'Up to this writing there is no evidence that the commercial instinct and patriotism are going to get together,' or they can take the attitude that it is only a matter of six or seven hundred thousand dollars that will be distributed through this program, and since taxes are hitting the highest level that anyone ever dreamed of in the state of Indiana that we'll just go on record as saying we'll do as we have always done, we'll just take care of these people, but we won't 'sock' the taxpayers for taking care of these people at a time when the national taxes will reach the highest peak in history. I would like to leave that proposition with this group, and if I can get any support on that sort of a proposition, we will present it to the Secretaries' Conference just that way."

Dr. Clark—"I move, as a member of the Council, that the Council go on record as favoring the suggestion of Dr. Leffel, with the idea that each Council member take this back to his local component societies for discussion so that the thing may be brought up for final action at the Secretaries' Conference. I think, furthermore, that it would be well that no publicity be allowed on this proposition until we have sounded the sentiment of each component society." Motion seconded by Dr. Perry and carried.

The subject of medical relief under the new law was discussed further by Doctors Beatty, Rozelle, M. L. Curtner, Samuel Kennedy and Crockett.

Dr. W. U. Kennedy, director of Research on Sickness Insurance—"What has just been said covers what I had intended talking about. Rather ominously let me call your attention to one historical fact. We have been opposed to socialized medicine, and with the passage of this law we have definitely entered upon it. It is almost identical to the German law; in effect, it is precisely the same. If the profession carries out this law, we have definitely begun the undermining of its social, scientific and economic status.

"In our own county we have done nothing. We have suggested to the president of the state society that he confer with the Governor to see if the operation of this law might be deferred. We have understood that it was a mandatory thing but have as yet done nothing about it. If we adopt this thing in Henry County it is going to be under Option 1. When we begin this, we are definitely starting socialized medicine, especially if Option 3 is used."

Dr. F. S. Crockett, chairman, Committee on Indiana Inter-Professional Health Council—"The Council lost its president in the death of Dean Jordan. Doctor Ferree addressed us at our last meeting, giving the layout for county defense. The

dean of the School of Pharmacy of Purdue University, Dr. Glen L. Jenkins, was elected chairman of the Inter-Professional Health Council."

The Chairman—"Several counties have not organized M-Day committees. They are urged to complete their M-Day committee as soon as possible because it seems probable that the M-Day committee will be the Procurement and Assignment Committee in each county."

There being no further business, the meeting was adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

COUNTY SOCIETIES

COUNTY MEDICAL SOCIETY OFFICERS

(Numerous reports were published in the January issue; these additional reports have been received since publication of that issue.)

ADAMS COUNTY MEDICAL SOCIETY:
President, Gerald J. Kohne, Decatur
Vice-president, James Burk, Decatur
Secretary-treasurer, Myron L. Habegger, Berne

BARTHOLOMEW COUNTY MEDICAL SOCIETY:
President, J. E. Dudding, Hope
Vice-president, Lyman Overshiner, Columbus
Secretary-treasurer, Marvin R. Davis, Columbus

BOONE COUNTY MEDICAL SOCIETY:
President, O. E. Brendel, Zionsville
Vice-president, Ralph J. Harvey, Whitestown
Secretary-treasurer, Clarence G. Kern, Lebanon

CARROLL COUNTY MEDICAL SOCIETY:
President, Max Adams, Flora
Vice-president, E. G. Bridwell, Delphi
Secretary-treasurer, C. L. Wise, Camden

CASS COUNTY MEDICAL SOCIETY:
President, Earl Palmer, Logansport
Vice-president, C. L. Rice, Logansport
Secretary-treasurer, Marian Hochhalter, Logansport

CLINTON COUNTY MEDICAL SOCIETY:
President, A. A. Williamson, Michigantown
Vice-president, J. A. Van Kirk, Frankfort
Secretary-treasurer, R. A. Hedgcock, Frankfort

CRAWFORD COUNTY MEDICAL SOCIETY:
President, F. R. Gobbel, English
Secretary-treasurer, G. B. Hammond, English

DAVIESS-MARTIN COUNTY MEDICAL SOCIETY:
President, E. B. Lett, Loogootee
Vice-president, Jack McKittrick, Washington
Secretary-treasurer, C. P. Fox, Washington

DEKALB COUNTY MEDICAL SOCIETY:
President, Bonnell M. Souder, Auburn
Vice-president, D. M. Hines, Auburn
Secretary-treasurer, C. B. Hathaway, Butler

DUBOIS COUNTY MEDICAL SOCIETY:
President, E. F. Steinkamp, Huntingburg
Secretary-treasurer, P. J. Blessinger, Jasper

ELKHART COUNTY MEDICAL SOCIETY:
President, C. K. Bender, Goshen
Vice-president, H. K. Lemon, Goshen
Secretary-treasurer, S. T. Miller, Elkhart

FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY:
President, William A. Kemp, Connersville
Vice-president, Walter A. Foreman, Brookville
Secretary-treasurer, R. H. Elliott, Connersville

FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY:
President, John S. Hash, Williamsport
Vice-president, John B. Owens, Veedersburg
Secretary-treasurer, Margaret T. Owen, Attica

FULTON COUNTY MEDICAL SOCIETY:
President, K. K. Kraning, Kewanna
Vice-president, Dean K. Stinson, Rochester
Secretary-treasurer, A. E. Stinson, Rochester

HANCOCK COUNTY MEDICAL SOCIETY:
President, H. K. Navin, Fortville
Vice-president, J. L. Allen, Greenfield.
Secretary-treasurer, J. R. Woods, Greenfield

HENRY COUNTY MEDICAL SOCIETY:
President, John Paul Marsh, Blountsville
Vice-president, J. G. Bledsoe, New Castle
Secretary-treasurer, William S. Robertson, Spiceland

JAY COUNTY MEDICAL SOCIETY:
President, Donald E. Spahr, Portland
Vice-president, G. V. Cring, Portland
Secretary-treasurer, B. M. Taylor, Portland

JOHNSON COUNTY MEDICAL SOCIETY:
President, Harry Murphy, Franklin
Vice-president, Charles Woodcock, Greenwood
Secretary-treasurer, Florence Blackford, Franklin

LAKE COUNTY MEDICAL SOCIETY:
President, George W. Gannon, Gary
Secretary-treasurer, Harry Brandman, Whiting

MONTGOMERY COUNTY MEDICAL SOCIETY:
President, George A. Collett, Crawfordsville
Vice-president, John W. Humphrey, Darlington
Secretary, W. M. Taylor, Crawfordsville

MORGAN COUNTY MEDICAL SOCIETY:
President, Maurice G. Murphy, Morgantown
Vice-president, H. R. Willan, Martinsville
Secretary-treasurer, H. H. Dutton, Martinsville

OWEN COUNTY MEDICAL SOCIETY:
President, R. H. Richards, Patricksburg
Secretary-treasurer, Julia S. Thom, Gosport

PERRY COUNTY MEDICAL SOCIETY:
President, E. E. Schriefer, Cannelton
Vice-president, J. E. Taylor, Leopold
Secretary, David Dukes, Tell City

PIKE COUNTY MEDICAL SOCIETY:
President, J. T. Kime, Petersburg
Vice-president, T. R. Rice, Petersburg
Secretary-treasurer, L. R. Miller, Winslow

POSEY COUNTY MEDICAL SOCIETY:
President, W. B. Challman, Mt. Vernon
Vice-president, Paul Boren, Poseyville
Secretary-treasurer, W. E. Jenkinson, Mt. Vernon

PUTNAM COUNTY MEDICAL SOCIETY:
President, William R. Tipton, Greencastle
Secretary-treasurer, L. F. Gwaltney, Roachdale

RANDOLPH COUNTY MEDICAL SOCIETY:
President, J. S. Robison, Winchester
Vice-president, L. W. Painter, Winchester
Secretary-treasurer, V. K. Stoelting, Winchester

SHELBY COUNTY MEDICAL SOCIETY:
President, R. M. Nigh, Fairland
Vice-president, H. H. Miller, Shelbyville
Secretary-treasurer, J. A. Davis, Flat Rock

ST. JOSEPH COUNTY MEDICAL SOCIETY:
President, A. S. Giordano, South Bend
Vice-president, K. E. Selby, South Bend
Secretary-treasurer, M. J. Thornton, South Bend

SULLIVAN COUNTY MEDICAL SOCIETY:
President, J. H. Wrork, Shelburn
Vice-president, H. C. O'Dell, Farmersburg
Secretary-treasurer, J. S. Brown, Carlisle

TIPPECANOE COUNTY MEDICAL SOCIETY:
President, Joseph W. Strayer, Lafayette
Vice-president, Marion J. Eaton, Lafayette
Secretary, Frank W. Ratcliff, Lafayette
Treasurer, Charles Hupe, Lafayette

TIPTON COUNTY MEDICAL SOCIETY:
President, S. M. Cotton, Goldsmith
Secretary-treasurer, W. F. Tranter, Sharpsville

VANDERBURGH COUNTY MEDICAL SOCIETY:
President, Thomas F. Reitz, Evansville
Vice-president, Edgar H. Weber, Evansville
Secretary-treasurer, Stanton L. Bryan, Evansville

VIGO COUNTY MEDICAL SOCIETY:
President, Frank E. Sayers, Terre Haute
Secretary-treasurer, A. M. Mitchell, Terre Haute

WABASH COUNTY MEDICAL SOCIETY:
President, Lorin Slegelmilch, Wabash
Vice-president, Lucille Carman, North Manchester
Secretary-treasurer, George K. Balsbaugh, North Manchester

WELLS COUNTY MEDICAL SOCIETY:
President, R. C. Wybourn, Ossian
Vice-president, W. A. Gitlin, Bluffton
Secretary-treasurer, G. B. Morris, Bluffton

LOCAL SOCIETY REPORTS

Adams County Medical Society members held a dinner meeting on December thirtieth at the Rice Hotel in Decatur. Officers were elected for the ensuing year.

* * *

Bartholomew County Medical Society members held a meeting on December tenth. After the dinner election of officers took place. The program of the evening included the showing of two motion pictures on surgery. Fourteen members were present at the meeting.

* * *

Boone County Medical Society members met at Lebanon on December second. Officers were elected.

* * *

Daviess-Martin County Medical Society members held a meeting at Washington on December sixteenth. An election of officers was included in the business session. Twenty members were present at the meeting.

* * *

Delaware-Blackford County Medical Society members held their annual formal dinner-dance at Hotel Roberts, Muncie, on December sixteenth. Following the dinner Al Wynkoop, of Lebanon, was the guest speaker.

Elkhart County Medical Society members held their annual business meeting on December fourth at Hotel Elkhart. Following a buffet dinner, Doctor Irving Mishkin, a captain in the Medical Reserve Corps at Toledo, Ohio, spoke briefly upon the Army's examination program. Also included in the evening's program were motion pictures on surgery, shown by Doctor Richard B. Stout, of Elkhart.

* * *

Fayette-Franklin County Medical Society members met at the McFarlan Hotel, at Connersville, on December ninth for a dinner meeting. Doctor Thomas Noble, Jr., of Indianapolis, was the guest speaker; his paper was entitled "Peritonitis." Thirteen members attended the meeting.

* * *

Fort Wayne (Allen County) Medical Society members held a dinner meeting on December sixteenth, with their wives as guests of the evening.

A meeting was held on January sixth at the Chamber of Commerce Building, at which Doctor George Garceau, professor of orthopedic surgery at the Indiana University School of Medicine, spoke on "Scoliosis."

* * *

Fountain-Warren County Medical Society members held their regular monthly meeting at Mudlavia on December fourth. Doctor E. O. Asher, of New Augusta, was the guest speaker. An election of officers also took place. Fourteen members were in attendance.

Another meeting was held at the Mudlavia Hotel on January first. Doctor M. R. Warden, roentgenologist of Danville, Illinois, gave a paper entitled "Radiology." Fifteen members attended the meeting.

* * *

Grant County Medical Society members held their regular monthly meeting at Marion on November twenty-seventh. Election of officers took place.

* * *

Hancock County Medical Society members met on December seventeenth at the Cozy Tourist Hotel, Greenfield. One of the topics of the evening was "The Need of Medical Men in the Armed Forces."

* * *

Hendricks County Medical Society members held a meeting on December twelfth in Crawley Hall, Danville. Officers were elected for the coming year.

* * *

Henry County Medical Society members held their annual guest dinner meeting at the Lutheran Church in Newcastle on December eighteenth. Mack Sauer, editor, of Leesburg, Ohio, was guest speaker. Sixty-seven members and guests were present at the meeting.

Howard County Medical Society members held a joint dinner-party with the members of the Women's Auxiliary on December twelfth. Doctor Thomas B. Noble, of Indianapolis, talked on the study he has made of prehistoric man in southwestern United States. The lecture was illustrated by a number of slides. About seventy members and guests attended the meeting.

* * *

Indianapolis (Marion County) Medical Society members met at the Indianapolis Athletic Club for their annual meeting on January sixth. Doctors J. O. Ritchey, retiring president of the society, and Larue Carter, chairman of the Military Affairs Committee and medical liaison member of the Fifth Corps Area Procurement Board, discussed the role of physicians in the war.

* * *

Jennings County Medical Society members held a meeting on December ninth in the public library in North Vernon. An election of officers took place.

* * *

Johnson County Medical Society members met in Franklin on December twelfth for their regular monthly meeting. After an election of officers, a discussion was held on the Welfare Department plan for the care of the indigent sick. Nine members were in attendance at the meeting.

* * *

Knox County Medical Society members held a banquet-meeting at the Jewell Cafe, in Vincennes, on December twenty-second.

* * *

Lake County Medical Society members met in north Hammond on December eleventh for their annual dinner meeting and election of officers.

The Society members were entertained by the Woman's Auxiliary at a dinner dance given at the Gary Hotel on December eighteenth. Doctor J. S. Niblick, of East Chicago, a member of the National Board for Civilian Defense, gave a short talk on the important part physicians are playing in the war.

* * *

Monroe County Medical Society members held a dinner-meeting and an election of officers at the Graham Hotel at Bloomington on December seventeenth. Doctor Neal Baxter, of Bloomington, president of the society, discussed the procurement and assignment of physicians to the armed forces. A discussion was also held on the problems that are arising from the medical treatment of indigent persons.

* * *

Montgomery County Medical Society members held their annual dinner-meeting on December eighteenth at the Crawfordsville Country Club. The doctors' wives were guests at the dinner. Professor George Davis, of Purdue University, entertained the audience with "Riley Poems." An election of officers also took place.

Northeastern Indiana Academy of Medicine members met at the Publix Cafe in Kendallville on December eighteenth.

* * *

Owen County Medical Society members held their monthly meeting on December eighteenth at Jimmie's Highway Grill. Following a luncheon and business meeting, officers were elected for 1942.

* * *

Parke-Vermillion County Medical Society members held a meeting at the Vermillion County Hospital, Clinton, on December seventeenth. Doctor John S. Leffel, of Connersville, gave a paper on "The New Medical Relief Law." Officers were elected for 1942. Nineteen members attended the meeting.

* * *

Perry County Medical Society members met at the Perry County Nursing Council office on December second for their annual meeting and the election of officers. At this meeting the society also approved the Well-baby Clinic.

* * *

Pike County Medical Society members met on December nineteenth at Doctor J. T. Kime's office, in Petersburg, for the election of officers for 1942.

* * *

Posey County Medical Society members held their regular meeting at Doctor H. E. Ropp's office, in New Harmony, on January eleventh. Officers were elected for 1942. The society is working on the plan of Public Welfare old age assistance, a diphtheria program, and a T. B. patch test program. Eight members were present at the meeting.

* * *

Putnam County Medical Society members entertained their wives at a dinner at the College Inn on December seventeenth. Following the dinner the group was entertained at the home of Dctor and Mrs. W. J. Fuson, in Greencastle.

* * *

Randolph County Medical Society members held a banquet on December ninth at the Elks Club in Union City. Following the dinner an election of officers took place. Twenty members and guests were present at the meeting.

Members of the society met at the Randolph County Hospital on January twelfth. Doctor L. G. Montgomery, of Muncie, gave a talk on "Nomenclature of Death Certificate." Doctor J. S. Robison, president of the society, gave a short talk on the "State of the Nation."

* * *

St. Joseph County Medical Society members held a meeting for the election of officers on December third.

Another meeting was held on December seventeenth at the South Bend Country Club. Doctor C. B. Peustow, associate professor of surgery at the University of Illinois, Champaign, was the speaker of the evening. Motion pictures were also shown.

Sullivan County Medical Society members met at Sullivan on January seventh for their monthly meeting. Doctor J. R. Crowder, of Sullivan, presented a paper on "X-ray Studies of the Chest." Fourteen members attended the meeting.

* * *

Tippecanoe County Medical Society members met at the Lafayette Country Club, Lafayette, for a business meeting on December ninth. An election of officers took place, and reports of the various committees were given. Fifty-one members attended the meeting.

A meeting of the Society was held on January thirteenth in the Lincoln Lodge at Lafayette. Doctor C. H. McCaskey, of Indianapolis, spoke on "Infections of the Vestibule of the Nose." Fifty-three were in attendance at the meeting.

* * *

Tri-County Medical Society members held their regular monthly meeting on December sixteenth for the election of officers. The meeting was held at Dewey's Cafe in Washington. The speaker of the evening was Miss Margaret Hawthorn, of Washington; her talk was on "Speech and Hearing Defects." Nineteen members and guests were present at the meeting.

* * *

Vanderburgh County Medical Society members met at the Boehne Tuberculosis Hospital on December ninth for a meeting and election of officers. During the afternoon the Indiana Tuberculosis Association sponsored a program and gave a demonstration of laboratory procedures. Following the dinner Doctor Daniel L. Sexton, associate professor of endocrinology at St. Louis University, spoke on "Failure of the Anterior Pituitary Gland."

The society members met at the Mead Johnson Office Building on January thirteenth for a meeting, at which Doctors J. C. Lawrence and H. D. Lynch of Evansville were the speakers. Seventy-two members were present at the meeting.

* * *

Wabash County Medical Society members attended a meeting of the society at the Sheller Hotel at North Manchester on December third. Officers for 1942 were elected.

* * *

Wayne-Union County Medical Society members met at the Reid Memorial Hospital in Richmond on December eleventh for their annual business meeting and election of officers. Twenty-five members were present.

* * *

Whitley County Medical Society members held a business meeting in Columbia City on December ninth for the election of officers.

If your dues are not paid
you are delinquent now!

WOMAN'S AUXILIARY

President—Mrs. Ernest O. Nay, Terre Haute.
President-Elect—Mrs. Arnold Duemling, Fort Wayne.
Corresponding Secretary—Mrs. Don M. Mattox, Terre Haute.
Treasurer—Mrs. T. R. Hayes, Muncie.

A well-merited honor has come to our state president, Mrs. E. O. Nay of Terre Haute. Each week the Delta Kappa Gamma sorority choose some Terre Haute woman, prominent in organization work, as the subject of a biographical sketch in the Sunday edition of *The Terre Haute Star*. On December seventh their choice was our Mrs. Nay.

They ferreted out many interesting facts about Mrs. Nay's life—her happy childhood on a farm in Illinois; a few years of teaching before she married Doctor Nay; two years of teaching in the Boston schools while Doctor Nay completed his internship there; and their return to the Middle West to begin twenty years of active life in Terre Haute. The following is quoted:

"Organization work has claimed much of Mrs. Nay's time since she came to Terre Haute. She has been active in the Department Club, serving as chairman of the French department and later of the social science department. At the present time she is chairman of the housing committee of the club. She is also serving on the board of the Y.W.C.A., and is the second vice-regent of the D.A.R. chapter. She has been active in the League of Women Voters, the Red Cross, and many other groups of welfare workers, for she really belongs to the community. . . .

"Besides the joy Mrs. Nay finds in outside activities, she finds even more in her home duties. She is a real homemaker, loves to cook and sew and take care of her house and garden." With it all she finds time to play some golf with her husband, although she claims to be only an amateur.

"Whatever she does she tries to do well, so we feel sure that her work as state president of the Woman's Auxiliary will be faithfully carried on. She will find joy in her happy contacts with her co-workers and will not neglect any of her duties. We wish her success and happiness."

(The following is the recommended 1941-42 program for the Woman's Auxiliary to Component Medical Societies, as found in the Post-convention Bulletin of the Woman's Auxiliary.)

America is arming for total defense. All over our country women are seeking ways to aid in the defense program. Most authorities agree that our work should be along educational and social lines. For many years the Woman's Auxiliary has worked along the line of health education. It is our duty now to concentrate our efforts in this work and to assume leadership whenever it is necessary and advisable. To this end, the preparation for

(Continued on page xxi)

(Continued from page 122)

leadership is of vital concern. It is the responsibility of the chairmen of program committees to outline such programs as will educate the doctor's wife for her part in this important work.

1. The first rule of procedure in all Auxiliary work is as follows: Do nothing without the approval of the local advisory council.

2. As chairman of program committees, familiarize yourself concerning current health problems in order that you may be able to pass on accurate information to others. A well informed citizen is a national asset. One of our national problems is the problem of nutrition.

Germany provided for this part of her war program. Great Britain has slowly learned that an adequate diet is one of her major problems; she, too, has found that the health and the morale of the nation have improved by providing a diet scientifically balanced.

A considerable percentage of the people in the United States have inadequate diets, but many of these people could correct this condition if they were properly informed on this subject and would take advantage of the food that is available to them. Not only the low-income groups suffer from malnutrition but those with adequate incomes are similarly afflicted, due in large measure to incorrect and vicious diet habits. Fads, personal likes and dislikes, as well as lack of nutritional knowledge, are primarily responsible for these.

3. Build some of your Auxiliary programs on this timely subject, nutrition. Have at least one nutrition forum this year for your own members. Ask your advisory council to help you with such a program.

4. Write to your state health department and ask them to tell you what local nutrition problems, if any, need to be studied. Inform your members concerning these problems; encourage study thereof by a small group, who will report to the general membership on their findings.

5. Plan for a few programs on mental hygiene. This is always an important subject, but especially so during times of stress and emergency.

If you do not have material available for these programs, notify your national chairman and material or suggestions will be sent to you.

6. The public has always expected the doctor's wife to know something about "First Aid," but too few of us have had training in this important work. Incorporate "First Aid" lessons in your program this year.

7. Legislative programs are always a necessary and interesting part of our Auxiliary work. Ask your chairman of legislation to present information on pending or proposed legislation as to health.

8. Present a discussion of the results of the Survey of Women's Health Interests, as conducted by the Bureau of Health Education of the American Medical Association. These results will be available for use very soon. They present a different and revealing account of one phase of women's interests, as well as invaluable information concerning the health interests of the community. Consult your public relations chairman for suggestions about this program, as well as about other programs concerned with community interests.

9. This year we are planning to present four "Information Please" programs, which will be stimulative and informative. We hope you will send this request to your national program chairman, Mrs. William Hibbitts, 2524 Wood Street, Texarkana, Texas.

10. Plan social programs for your group. Recreation and amusement help keep up the morale during these critical times.

(Continued on page xxii)

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"It was most reassuring to me to know that The Medical Protective Company, with all of its vast experience in this type of litigation, was conducting my defense. I have been insured in your Company since 1914."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

EXTRA VALUE!

Through your Medical Society you can obtain wide open Sickness and Accident Protection at a worth-while saving.

Consider these advantages which are available to you provided you accept them while you are still in good health.

1. EVERY TYPE OF DISABILITY COVERED.
2. PROTECTION MAY CONTINUE TO AGE 70.
3. RATES DO NOT INCREASE WITH AGE.
4. NO INDIVIDUAL CANCELLATION.
5. NO MEDICAL EXAMINATION.

Your coverage is handled as a confidential matter between the agent and yourself.

JAMES R. GEIGER

Lincoln Bank Tower — Fort Wayne, Ind.

— *representing* —

Commercial Casualty Insurance Company
Newark, N. J.

(Continued from page xxi)

11. Dr. W. W. Bauer, director of the Bureau of Health Education, American Medical Association, 535 North Dearborn Street, Chicago, Illinois, will gladly send sample sets of available publications and catalogues of the program to health and education chairmen of each state.

12. Consult your *Hygeia* magazine frequently for material. This year you will find many articles in this magazine on the subject of nutrition, as well as on other timely health subjects.

13. Learn to use your *Bulletin*. This year all Auxiliary material will be presented in this official organ of the Woman's Auxiliary to the American Medical Association. Urge your membership to subscribe for the *Bulletin*. An informed member is an interested member. If we are to do our best work, we must know what the Auxiliary is trying to accomplish.

14. Finally, strive to make each one of your programs a real Auxiliary program and not an imitation of your other club programs. This year, plan programs that will teach your Auxiliary something interesting and instructive regarding individual and community health. As has been said many times and by many people, "Health is Our First Line of Defense."

In conclusion, your Program Committee wishes to call attention to the fact that the general subject of nutrition has been made the basis of a tremendous amount of propaganda, emanating from many sources. The faddists and certain over-enthusiastic individuals may seize the opportunity created by the vast amount of publicity on this subject to promote various theories and schemes. The danger of accepting such ideas should be stressed at all times. The House of Delegates of the American Medical Asociation at its meeting in Cleveland in June passed resolutions urging, among other things, that broader research in nutrition be encouraged and that schools of medicine give greater thought to the teaching of this subject.

We urge that extreme care be taken to provide the most authoritative information available for the basis of any studies on nutrition. We are assured that the Bureau of Health Education of the American Medical Association will be glad to assist you in this respect. Your local advisory councils should be asked to check such material on this subject as may be obtained from local public libraries as well as to aid you in obtaining trained speakers on the various phases of nutrition.

COUNTY NEWS

Dr. M. A. Austin, president of the Indiana State Medical Association, lectured on "Health Insurance" to the Allen County Medical Auxiliary on January sixth. The members were guests of the Lutheran Hospital for a dessert supper. The Auxiliary Red Cross Committee is organizing classes in "First Aid" for its members. The Pediatrics Committee is cooperating with the various hospitals in providing entertainment for children who are hospitalized, with prolonged convalescence. Comic sections from the Sunday papers are collected, also washable toys. Fifteen subscriptions to *Hygeia* have been presented to schools in the county and to recreational and social centers in the city.

An interesting meeting was held by the Delaware-Blackford Auxiliary in December, when Mrs. E. O. Nay, state president, gave a talk on the state project of writing the "History of the Pioneer Doctors of Indiana." Mrs. U. G. Poland gave an account of Delaware County's pioneer physicians, and it was noted that descendants were present at the meeting.

The wives of the Marion County doctors were invited to the Annual President's Meeting held in January at the Indianapolis Athletic Club.

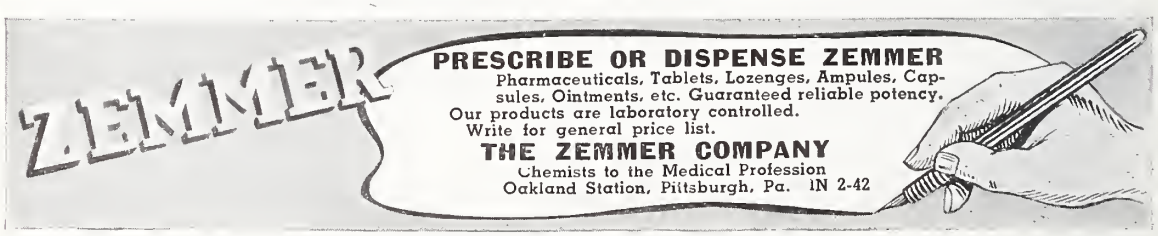
The members of the Marshall County Auxiliary prepare their own programs. At the last meeting the subject of "Vitamins" was discussed. It was decided to put *Hygeia* in the schools.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, November, 1941

DISEASES	*Nov. 1941*	*Oct. 1941*	*Sept. 1941*	*Nov. 1940*	*Nov. 1939*
Tuberculosis, Primary	3	0	5	0	0
Tuberculosis, Active	110	86	86	126	145
Tuberculosis, Arrested	8	3	6	0	0
Chickenpox	325	79	13	390	315
Measles	63	16	9	78	55
Scarlet Fever	378	200	35	392	540
Smallpox	3	1	1	1	8
Typhoid Fever	12	9	6	7	18
Whooping Cough	142	44	45	88	162
Diphtheria	98	65	8	74	91
Influenza	143	72	2	22	22
Pneumonia	52	50	36	44	31
Mumps	26	10	8	126	257
Poliomyelitis	15	9	17	63	10
Cerebrospinal Meningitis	5	1	0	3	2
Trachoma	1	0	0	1	2
Tularemia	6	0	1	30	6
Undulant Fever	4	2	1	4	8
Malaria	2	9	1	7	0
Rubella	3	1	0	0	0



BOOKS

RECEIVED

WOMAN'S PERSONAL HYGIENE—Modern Methods and Appliances. By Leona W. Chalmers. 192 pages with illustrations. Cloth. Price $2.00. Pioneer Publications, Inc., New York City, 1941.

* * * *

THE MARCH OF MEDICINE. New York Academy of Medicine Lectures to the Laity, 1941. 154 pages. Illustrated. Cloth. Price $2.00. Columbia University Press, New York, 1941.

* * * *

NEUROANATOMY. By Fred A. Mettler, A.M., M.D., Ph.D., Professor of Anatomy, University of Georgia School of Medicine, Augusta, Georgia. 476 pages with 337 illustrations including 30 in color. Cloth. Price $7.50. The C. V. Mosby Company, St. Louis, 1942.

* * * *

THE 1941 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY. Edited by Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. 432 pages with 353 illustrations. Fabrikoid. Price $3.00. The Year Book Publishers, Inc., Chicago, 1941.

* * * *

ALLERGY IN CLINICAL PRACTICE. By Staff-Members of the Cleveland Clinic under the direction of Russell L. Haden, M.D., F.A.C.P., Chief of the Medical Division. Edited by J. Warrick Thomas, M.D., F.A.C.P., Chief of the Section on Allergy. 354 pages. 92 illustrations including 14 subjects in color. Cloth. Price $5.00. J. B. Lippincott Company, Philadelphia, 1941.

ABSTRACT

SYNTHETIC VITAMIN K AND TUBERCULOSIS

The possibility that synthetic vitamin K may be an addition to the armamentarium in the control of hemoptysis in certain cases of tuberculosis of the lung is suggested by R. F. Sheely, M.D., White Haven, Pa., in *The Journal of the American Medical Association* for November 8 as the result of investigation of the prothrombin or blood clotting factor in patients with this complication.

Dr. Sheely says that the incidence of hemoptysis has been reported as ranging from 20 to 80 per cent and that one physician found that 33.8 per cent of 1,000 patients admitted to a sanatorium because of tuberculosis of the lung had the condition before discharge or death. Vitamin K is known as the antihemorrhagic vitamin.

In 106 cases of pulmonary tuberculosis, the prothrombin concentration in the blood was studied by Dr. Sheely. A significant deficiency of prothrombin was found in 51 of the patients, the concentration being less than 59 per cent of normal. Fifty of these had far advanced disease.

"The status as to prothrombin level appeared to coincide with the clinical and roentgenologic status of the majority of the patients," he reports.

"It is suggested that the prothrombin concentration should be determined in every case of hemoptysis in pulmonary tuberculosis. In 4 cases of frank hemoptysis with associated prothrombin deficiency, the elevation of the blood prothrombin level on the administration of vitamin K, orally and parenterally, was a likely factor in the control of hemoptysis."

Barry

REASONABLY PRICED
treatment and diagnostic materials for your allergy patients is a definite economical factor worth investigating.

Accurately standardized in convenient, ready-to-use form and delivered to your office without unnecessary delay.

Write for F-11 detailed descriptive literature.

Service to the medical profession for more than a decade.

BARRY Allergy LABORATORY INC.
9100 KERCHEVAL DETROIT

Allergenic Extracts
Serums . . Vaccines
Biological Specialities.



Cook County Graduate School of Medicine
(In affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.
ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique with practice on living tissue, starting January 12th and every two weeks thereafter. General Courses One, Two, Three and Six Months; Clinical Courses; Special Courses. Rectal Surgery every week.

MEDICINE—Two Weeks Intensive Course will be offered starting June 1st. Two Weeks Course in Gastro-Enterology will be offered starting June 15th. One Month Course in Electrocardiography and Heart Disease every month, except December and August.

FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting March 9th. Informal Course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting April 6th. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting April 20th. Informal Course every week.

OTOLARYNGOLOGY — Two Weeks Intensive Course will be offered starting April 6th. Clinical and Special Courses starting every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting April 20th. Five Weeks Course in Refraction Methods starting March 9th. Informal Course every week.

ROENTGENOLOGY — Courses in X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore St., Chicago, Ill.

KOROMEX DIAPHRAGM



KOROMEX
TRIP-RELEASE INTRODUCER

TIP TURNS ON SWIVEL

Holland-Rantos
Company, Inc.

551 Fifth Avenue **New York, N.Y.**

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 MARCH, 1942 NUMBER 3

SELECTIVE SERVICE AND THE MEDICAL PROFESSION*

GENERAL LEWIS B. HERSHEY, Director

SELECTIVE SERVICE SYSTEM

Washington, D.C.

Mr. President, Distinguished Guests, including Governor Dawson, and Doctors—if there are any in the house: I am happy to have the opportunity to come here, not only because I have a good deal of pride in the way this State, in this Corps Area, is operating the Selective Service, but I welcome an opportunity to mingle with the profession that has during the past eighteen months, without any charge to our government or other agencies, examined some three million men.

I should like this evening to say a word about manpower in general; then, perhaps, some things about that part of manpower that happens to be in the medical profession. As you know, some of the younger ones here in the audience, those below forty-four and beyond twenty-one, are going to participate in registration on the sixteenth of February. We welcome you to our midst and we will do the best we can to give you an opportunity to do the things you have been telling the young men, over the last year and a half, you wished you were young enough to do.

I am not here to lecture on complacency and hysteria, but, unfortunately, the Selective Service System seems to be caught between those two horns of a dilemma. We were caught on complacency, although much of that has gone with the things that have happened in the last eight weeks.

I do not want to be an alarmist, but this is a real game, not a practice game; it will be a Notre Dame game, rather than a push-over, and we must make our arrangements accordingly.

Individuals who pretend to know, although there is no proof that they do, tell me that more than half of the individuals counted in the census could be useful in the winning of this war.

"Useful" is a broad term when I remember my youthful days in the north end of the State—when I was about eighteen or twenty I was somewhat useful. Perhaps I have exalted ideas of what I accomplished, but certainly I kept two or three horses from being lonesome during a great part of the summer, just going back and forth over the fields—our farm stood on edge, so we farmed both sides—walking up hill and down trying to disengage the weeds that grew along the corn rows. And I can tell you that was not near as much fun as tramping hills on a vacation. But if somewhere around half of our one hundred and thirty million people can be adapted to some useful purpose—whether that is a fair estimate I do not know—it will give us a start. Obviously, we cannot take all those people into the armed forces, and obviously, we do not want to.

There is some difference of opinion among experts as to how many men, women and children who are in a measure productive it takes to keep a soldier fighting. I call your attention, however, to the fact that conditions have changed since primitive days when a man in winter made himself a dozen arrows and a couple of bows and in the spring was ready for war. We have come to a place where it takes a great many men a great many hours to make something that an explosive can get rid of by the turning of a handle. We must therefore have a little different conception of war, even different from that we had in the World War.

One of the most difficult tasks we face is to try to keep away from what we might call hysteria, not thinking that each and every able-bodied man must at once get into the armed forces and attempt to win the war by being an exploder of ammunition rather than a maker. Some men who are regarded as authorities say it takes somewhere between ten to twenty-five individuals at home to keep a soldier fighting. Twenty-five does not go into sixty enough times to make a large military force;

* Presented before the Indiana Secretaries' Conference at Indianapolis on January 25, 1942.

and even if you take ten, you can see six or seven millions would exhaust us in trying to get enough labor to support these men in the armed forces. Perhaps ten is the upper limit—it depends on many things. Germany has mobilized two millions for labor, but she has had the people of the conquered races to do a great deal of work for which we have to depend on our own people.

The Selective Service System is not the Atlas that is carrying this war on its shoulders, but on account of some responsibility, it is necessary for us to know the whole picture, and there are three questions we must face: What do we have? What do we need? How are we going to apply our supply to our needs? To find the answers to these questions, we have to record, register, inventory, and perhaps catalog, each person who can contribute something to the winning of this war, and determine what each can do.

If the manpower is going to be short, there must be no reason for not using efficiently the manpower we have. But our manpower, like rubber, is not inexhaustible. We used to think we had a great deal of rubber. Any man here who is serving on an allocation board for tires has found the truth about that. Therefore we feel the time is at hand when we must learn quickly and exactly what we have and what we can do.

Major Seeley, in his discussion this afternoon, predicted the budgeting of our manpower to our needs—that the time will come when they will say, "This you can have and this you cannot." We must remember that our sixty million manpower is not all the same kind; it varies in age, in skill, in degrees of physical qualifications. Woe to the country if proper controls are not exercised. The using agencies will grab more than their share of the cream of this manpower, no matter how great may be the need, and in that event the whole country will suffer because some link of the chain is weak. We must re-count our armed forces and let the government, perhaps, even take out some of the dead material that has gotten into it.

We are not facing a pushover. We may hope and do wishful thinking; we may expect the Germans to fold up, the Russians to defeat the Japanese, but in the end we may face the necessity of fighting for some of the things we have been enjoying for quite a long time. So I repeat, we must soon budget the future uses of our manpower and begin to see that the supply is applied to the needs that are paramount at the time.

Manpower can serve in the factories today and in the armed forces tomorrow. It is somewhat easier done that way than to serve in the armed forces today and the factories tomorrow. Once you commit men to the Army, the Navy, the Air Corps, or the Marine Corps, it is rather difficult to reconstruct your reserves when you are at war. So let us not make the mistake of England, when after Dunkerque, she had to go back and comb her Army to get men who could make arms to replace those that were lost at Dunkerque. It is a very hard and unsatisfactory method of getting the men you need.

Again I revert to the dangers of complacency and hysteria. We must have no complacency on the part of the manufacturers who employ men, say in the pre-twenties or twenties, who have no reason for not going to war, except working in these industries believing they can hold on to these men forever. On the other hand, we must not for a while take these men from industry until they can be replaced, because there is no use in talking about winning this war unless we rapidly increase our output of the means by which war is won. I think I am reasonably correct when I say that in the next twelve months we must triple—I repeat, triple—the number of men we have in defense industries, which means we must have available ten million men in defense industries. They must come from non-essential industries, from non-employment, and from people who up to now have been able to live without working. I think these people must face the day when they will not be allowed to make the decision as to whether or not they actually work.

Now if it is true that we have certain needs that must be met, and if it is true that we have a limited amount of manpower and womanpower, even when we include what children can do where they can do it, then what are the controls that we will use to try to move from non-essential industries the men who must go into essential industries?

I believe that I am fortunate in that I grew up in the hills of Steuben County, because in those hills we had to develop a reasonable amount of individuality. In those days we had to have individuality because we did not see much of anybody else. At the present time it seems to me we see too many people. But be that as it may, we are facing a stern necessity, and if we are going to maintain our individual freedom and our individual rights, we must figure some way in which by voluntary methods we can accomplish what the people we are playing against on this other team secure by giving commands.

We used to play one-old-cat at Hell's Point schoolhouse. As we played it, each player would bat until someone caught the ball and then he had to lay down the bat and go into the field. So long as everyone did that, we played the game; but if someone said that he would not bat, then we could not play, the game would stop, and we had to call in an umpire. That meant authority imposed from without, and that is not so different from the picture in the totalitarian states today.

The totalitarian states do not need to worry about many things; their people have nothing to say about the methods of transfer from one occupation to another, but certainly we do not want that situation here. However, we are up against a situation in which we must be democratic, and the test of our democracy will be the extent to

which we are willing voluntarily to go on playing the game—making the changes that must be made, temporarily we hope, to the end that there will be something left after the war.

We have never lost a war, and certainly none of us think we ever shall, but we have not had simultaneous war on two oceans heretofore and it is going to require something more than complacency. But again I warn you against hysteria.

When we had a fire up on the farm, if it was not much of a fire, say in a pasture, we would let it burn until the neighbors put it out, but in their enthusiasm and hysteria they usually did some damage. But the fire we are facing will take the combined efforts of all of us to put it out, and unless we apply ourselves systematically to the task before us there will be a certain amount of over-enthusiasm and hysteria. I do not think this war will be won in a sprint; I do not think it is a hundred-yard dash; I think it is a long race, and we must settle down and everyone pull at the oars. As to our manpower, this means that all the people, all the one hundred thirty million people, must understand what we are trying to do so they will accept it and become a part of it, doing their part not because someone told them to, but because they know it is necessary.

Now your problem, as outlined by Major Seeley this afternoon, is not materially different from the whole manpower picture. You have a certain number in the medical profession, you have certain established needs; each year there is turned into the profession a certain number of people to take care of the medical needs in the United States. The people of the United States have definite needs, but undoubtedly, those needs are going to be exaggerated. I have never known, either in the government service or in a private company, an instance where if asked how many doctors they need, they would not try to get all they can. But when the estimate shows that twenty per cent more doctors are called for than are in the United States, we must start to cut that down, and you must know what you have and what your needs are.

Then we come to the question of moving people from where they are to where they must go. When it comes to moving men from one corps area to another, we do not want to move them all out, but there are some that can be spared.

I do not think I will be greeted by any wild burst of enthusiasm when I say that some men who have arranged to retire from doctoring will have to go back and re-arrange their affairs. I also think many who are now practicing will have to practice without regard to some of the hours they have been able to choose heretofore.

Undoubtedly, we must take care of our military and naval forces, not necessarily all they ask, but what they need, if there be a difference. I do not believe the public would take kindly a lack of medical attention to our soldiers and sailors and marines, and I should not care to be responsible, even as an individual, for having made that need any more pressing. Obviously, also, we do not want to withdraw medical attention from our civilian population.

The Selective Service System is very much interested in having medical attention for the civilian population. We believe that maintaining the structure of our national life is most important. Unfortunately, however, we are in a position where we must assist in trying to bring into the military service all sorts of personnel that we need.

Now Congress has placed liability for military service on all men between twenty and forty-four years of age. Congress has given the President certain authority to grant deferments to those who, in the national interest, should have deferments. Up to date we have had a training program rather than a war program, and we have tried to be reasonable in many respects, particularly in regard to dependents. But I call your attention to the fact that dependency is something that must be thought of in terms of the whole.

We believe that the maintenance of family life is most vital to the continuation of our Nation. That is a general principle and under that we have been reasonably broad minded in deferring those who have dependents. We have found, for example, that many individuals are marrying on the very eve of induction. We hardly feel that marriage to establish deferment is a substantial basis for a home, or that evasion is the keystone of a family. Accordingly, we have held that it is up to the registrant to show that he has married for some other reason than to obtain deferment.

I do not know to what extent we must stretch the elasticity of the Selective Service to obtain certain types of individuals the Army and Navy must have, but I do have considerable faith that the people of this United States will support whatever flexible application of the Selective Service is necessary to accomplish that purpose. And if that be true, and if we in the future are brought before the bar of public opinion, then I am sure that such regulations as may be necessary for acceptable functioning to secure sufficient personnel for the armed forces will be in force.

I do not think they will be compelled to take any measures against the medical profession. Looking back on the three million men examined during the past year, without cost to the government, I am led to believe that always when our government's hour of need is at hand, the medical profession will not be found wanting. In fact, I am quite certain.

I think you are quite aware that the Selective Service System has insured, to a large degree, that your supply of new doctors will continue. We have deferred, with few exceptions, medical students who are in good standing and recommended by their deans, and if ever there comes a time when pre-medical students are scarce, I am quite sure

we still can find means to insure a flow of men into the medical profession. None of us wants to face a world in which there is a scarcity of doctors, and I believe when the time comes that we want five thousand, or ten thousand, or fifteen thousand more doctors, they will be available. Some may be a little lame, but they, perhaps, can operate in a field where mobility is not the main consideration.

I am indeed happy to have the opportunity again to be in Hoosierdom, and especially to mingle with the Hoosier doctors. I do not think of them, perhaps I ignore them, when I am in good health, but I rush to them the first time I am otherwise.

THE FUNCTIONS OF THE PROCUREMENT AND ASSIGNMENT SERVICE*

MAJOR SAMUEL F. SEELEY, Executive Officer
PROCUREMENT AND ASSIGNMENT SERVICE
Washington, D.C.

Members of the Indiana Secretaries' Conference: Before entering upon a discussion of the functions of the new Procurement and Assignment Service of the Office of Defense Health and Welfare Services, recently organized in Washington, D.C., I wish to convey to you the appreciation of the Directing Board of the Procurement and Assignment Service for your splendid and wholehearted cooperation. Doctor Frank Lahey of Boston, chairman of the Directing Board of the Procurement and Assignment Service, has requested that I appear before you in order that I may explain to you the mission of the Procurement and Assignment Service. First I want to express the appreciation of Dr. Frank Lahey, chairman of the Board, to the Indiana State Medical Association for letting us have Tom Hendricks during the emergency.

I am certain that it will be a great source of satisfaction to you to know that the medical profession of this country anticipated many months ago the necessity of formulating a program which would insure the best professional care of the armed forces, the industrial and civil agencies of our country. Under the direction of the President the Office for Emergency Management has set up three distinct agencies charged with mobilization of our national resources in order that the best possible medical care may be given to every citizen of our country. These three agencies are as follows: (1) The Health and Medical Committee of the Office of Defense Health and Welfare Services, which functions in an advisory capacity; (2) The Office of Scientific Research and Development, which is conducting a broad program of medical research under the auspices of Doctor Richards of Pennsylvania, chairman of the Committee on Medical Research, and (3) The Procurement and Assignment Service of which I will speak in particular.

The Health and Medical Committee is composed of a "main" committee, consisting of Doctor Abell of Louisville, Kentucky, the Surgeons General of the United States Army, United States Navy, the United States Public Health Service, and Doctor Richards. Subcommittees under the Health and Medical Committee assist in formulating national policies in reference to Medical Education, Hospitalization, Industrial Health and Medicine, Nursing, Negro Health and Dentistry.

All matters pertaining to medical research are carried out by the Medical Division of the National Research Council of the National Academy of Sciences. Doctor Weed, who is chairman of the Medical Division of the National Research Council, has organized ten major committees with the necessary subcommittees, which are engaged in carrying out every conceivable angle of medical research which will contribute to the national emergency program. More than two hundred of the most noted scientists of this country are engaged in carrying out research problems under the auspices of the National Research Council. Liaison officers from the Army and Navy carry problems from the Professional Service Division of those services to the various committees of the National Research Council. These committees transmit to the Surgeons General resumés of the best known methods of treatment of all diseases and injuries. Research problems are drawn up and allocated to laboratories throughout the entire country. The National Research Council committees assist in drawing up of memoranda which are transmitted to the medical officers of the Army and the Navy and which may be used as a basis for treatment along the most modern lines.

As early as June, 1940, the Surgeon General of the United States Army requested that the American Medical Association assist in the procurement of the necessary personnel for an army of one and one-half million men. The American Medical Association started immediately in the drawing up of rosters of all of the physicians of the United States. Shortly after this the American Dental Association also drew up rosters of the dental profession. At the present time the American Veterinary Medical Association is engaged in draw-

* Presented before the Indiana Secretaries' Conference at Indianapolis on January twenty-fifth.

ing up rosters of all of the practicing veterinarians of the country. These rosters have served to assist the Surgeon General of the Army in obtaining medical department personnel to carry out the duties incident to the maintenance of an army of 1,700,000 men.

In April, 1941, the Subcommittee on Medical Education of the Health and Medical Committee passed a resolution to the "main" committee recommending that a central agency be set up for the purpose of procuring and assigning medical, dental and veterinary personnel to the armed services with a view of maintaining adequate professional care for the industrial population and the civilian population of this country. This resolution was accepted by the Health and Medical Committee, and at the meeting of the American Medical Association in Cleveland in June, 1941, this resolution was indorsed and passed back to the Health and Medical Committee. This Committee met on October twenty-second to initiate the development of a Procurement and Assignment Service. At that meeting the members of the Health and Medical Committee sought the consultation and advice of the leading medical and dental people of the United States. Liaison officers from practically every Government agency, including Selective Service and the Office of Civilian Defense, aided in drawing up this program. At this meeting a Commission was appointed by the Health and Medical Committee which was requested to draft a program for a Procurement and Assignment Service. At this point developments moved forward rapidly. The Commission met on October twenty-eighth and recommended the setting up of the Procurement and Assignment Service. Their recommendations were forwarded to the President by the Director of the Office of Defense Health and Welfare Services, and were approved by the President on October thirtieth. The President has named the following members to serve on the Directing Board: Dr. Frank H. Lahey of Boston, chairman; Dr. C. Willard Camalier, Washington, D.C.; Dr. Harold S. Diehl, Minneapolis; Minnesota; Dr. James E. Paullin, Atlanta, Georgia; and Dr. Harvey B. Stone, Baltimore, Maryland. Dr. Sam F. Seeley, at that time on duty in the Office of the Surgeon General, was named as Executive Officer to the Directing Board and, by direction of the President, has been transferred from the War Department to serve as Executive Officer in a full-time capacity. Committees were formed immediately on Dentistry, Hospitals, Industrial Health, Information, Medical Education, Negro Health, Public Health, Veterinary Medicine, and Women Physicians. Liaison officers have been assigned by the Army, Navy, United States Public Health Service, Veterans Administration, Selective Service System, United States Civil Service Commission, Office of Civilian Defense, and the Division of Health Services, Children's Bureau, Washington, D.C.

The primary objective of the Procurement and Assignment Service is to maintain a complete list of all physicians, dentists, and veterinarians of the entire country with detailed information as to age, physical condition, professional qualifications, and availability for service in the various military, civil and industrial agencies of the country. This information has been tabulated on the punch-card system. All agencies of the Government which utilize the services of physicians, dentists and veterinarians are making requisition upon the Procurement and Assignment Service for personnel. These requisitions state the age, professional qualifications, and the physical condition of those professional people whose services are desired by these agencies. Lists are prepared from the rosters and forwarded to the requisitioning agency. At the same time, the Procurement and Assignment Service will notify the people whose names have been tendered to the requisitioning agency that they have been chosen to enter upon their new duties, and these men will be asked to appear for physical examinations.

Through the various committees serving the Procurement and Assignment Service, surveys are rapidly being made of all of the facilities of the United States. For example, every hospital will be canvassed and they will be asked to state the minimum number of professional people required to maintain adequate care of the sick of these institutions. In the same manner, the needs of school faculties, industrial organizations, national, state and county health organizations, and other agencies, both military and civil, are being surveyed.

The organization of the Procurement and Assignment Service now is practically complete. The central office has been set up at 601 Pennsylvania Avenue in Washington, D.C., and a regional office is set up in Chicago, which will maintain the rosters of the American Medical, Dental, and Veterinary Medical Associations. Committees are named in each of the nine Corps Areas, which serve in an advisory capacity to the Corps Area Commander. Incidentally, these geographical Corps Areas of the Army coincide exactly with the Defense Areas set up by the Office of Civilian Defense. The committees serving in each Corps Area consist of a representative of medical education, a representative of hospitals, a representative of the national preparedness committee, and at least two well-known civilian practitioners of that territory who are acquainted with the professional people and with the needs of those areas. At present the committees are being set up within the Corps Areas in each of the States, and these State Committees will be asked in the very near future to develop committees within their districts and counties in order that the many functions of the Procurement and Assignment Service may be carried down to the last county of the country.

The functions of this Service are broadly two

in character, procurement and assignment. In order to maintain the existing rosters and to determine the professional qualifications of professional personnel, also to determine the needs of the medical training institutions, hospitals, the health departments, industrial organizations and civil communities, the committees of each county will forward to the central office through their State committees information which will serve to insure proper distribution of professional personnel in every capacity. These committees will be asked to serve in the conduct of surveys by the various committees of the Procurement and Assignment Service. To date, more than nineteen hundred of the more than three thousand counties of the United States have been completely surveyed and reports are now on file in the office upon which the needs of the community and the availability of personnel of those communities may be judged.

Assignment of professional personnel will be based upon the information gained through these various communities. As far back as July of 1940 more than fifty per cent of the first one hundred and fifty thousand physicians who answered questionnaires volunteered for military service in case of war. Under the present circumstances and in view of recent military developments, it is anticipated that the majority of all physicians, dentists and veterinarians are now ready to volunteer for active military service in any capacity which may be best suited to the national defense program. It is hoped that the functions of the Procurement and Assignment Service may be facilitated by the early volunteering of the professional people throughout this country. It is our hope that so many will volunteer to serve in any capacity which the Service may predetermine that we will be able to satisfy at an early date the needs of the military service and may turn our attention to an equally important function, that of avoiding disproportionate dislocation of professional people from communities where their services are needed. In this way, the Procurement and Assignment Service expects to minimize the dislocation of professional people from key positions in the civil and industrial communities.

Let us turn for a moment to the assets in terms of professional people of our country today. Approximately sixty per cent of those graduating, after twelve months of internship are under the age of twenty-eight. The majority of these men are physically fit and must enter upon military service. The Selective Service System has deferred these men for a time sufficient to guarantee graduation from medical school and the completion of twelve months of internship. These students have been asked that during the last two years of medical school training they join the Medical Administrative Corps Reserve or a Reserve Corps in the Navy of a like nature. After graduating from college they are asked to join the Medical Corps Reserve of the Army or the Navy in order that they may be sent to active duty immediately upon completion of the twelve months of internship. It becomes apparent that if a medical student has not identified himself with the Army or the Navy after the completion of twelve months of internship, and he is under the age of twenty-eight, that he may be drafted as a private. For this reason, it is necessary that all men engaged in medical education must seek a Reserve Commission in the Army of the United States or in the Reserve Corps of the Navy, in order that their induction into the military service will result in the utilization of their medical training. During the World War of 1917, the draft age was higher than twenty-eight. At the present time, we are unable to state whether the draft age will be raised and we are unable to surmise what age will be set if the draft age is raised. For this reason, the Directing Board of the Procurement and Assignment Service recommends that every doctor who is physically able identify himself as willing to enter the military service in case he is needed. It is anticipated that within the next thirty days every physician, dentist, and veterinarian of this country will be canvassed and will be asked to return an enrollment form to the national roster for use by the Procurement and Assignment Service. At that time an estimate will have been made of the number of professional people required by each of the Government agencies, the civil and industrial agencies, and the civil communities. It is anticipated that the names of professional people will be set aside so that they may be forwarded as the needs of the military service expand. Each recipient of this enrollment form will be asked to state his first, second, third and possibly more choices as to what type of service he would prefer to render. Upon analysis, it is hoped that a sufficient number will be available to serve in the armed forces, in the industrial plants, and in other agencies which would require dislocation from their present locality, so that a minimal disruption of the present conditions will result.

In closing, I wish to impress upon you the necessity of all of those under thirty-six, who are physically fit, volunteering to serve in the military services. Let us hope that it will not become necessary to consider legislation which would make it mandatory that professional people who are physically fit be forced into the military service against their will.

ARTERIOSCLEROTIC HEART DISEASE

ARTHUR N. FERGUSON, M.D.
FORT WAYNE

The clinical conceptions of sclerosis of the coronary arteries with resulting changes in the myocardium have progressed far since Herrick[1] called attention to them in 1912. In the following paper an attempt will be made to condense the author's impressions on this subject gained from reading, postgraduate work, and clinical observation. Most patients with arteriosclerotic heart disease have other conditions which complicate the situation, such as hypertension. However, relatively pure cases are seen, and illustrative instances of these will be presented.

ETIOLOGY

Arteriosclerosis tends to appear as age increases, and there is a marked hereditary factor. These are the only positive statements that can be made about arteriosclerosis in general. The factor of age is well recognized. While coronary arteriosclerosis can occur at any age, that which produces symptoms is most commonly found after forty-five. Further, between forty-five and sixty thrombosis is most frequent, while in the later years, from sixty to seventy and beyond, other symptoms, particularly the gradual onset of failure, are more commonly found.

Heredity is probably the most important factor. In many cases of coronary arteriosclerosis there is a history of a similar condition in the family, and often several members are involved. In some instances it has been possible to predict with some accuracy the length of life that certain individuals in a given family will enjoy. On the other hand, families in which longevity is noted frequently are made up of individuals who have little evidence of arteriosclerosis.

Sex is of some importance, males being affected more frequently than females. At one time it was felt that angina pectoris and coronary thrombosis were very rare in women, but as time goes on it appears that the condition is seen frequently in women as well as men, the ratio being approximately five to one.

At times the social status of individuals has been mentioned as being of some importance. It has been claimed that the condition is more frequent in executives and professional men. Evidence for this is not conclusive, for arteriosclerosis occurs also in persons of relatively low social status. Hard muscular work has been considered as a factor in arteriosclerosis in men. Even so, the ratio among professional men is high, and this point can hardly be regarded as settled.

Hypertension has frequently been mentioned. In hypertension there is greater than normal intravascular pressure, which, acting over a sufficient period of time, may be a factor in the production of damage to the arteries. However, arteriosclerosis occurs without hypertension. Consequently, hypertension, when it exists, can be considered only as a contributing factor.

Attempts have been made to state the real exciting cause of arteriosclerosis. The first possible cause that is usually considered is infection. This infection may have occurred during childhood with such diseases as scarlet fever, diphtheria, and influenza, with damage to the arteries which is manifested later in life. Foci of infection have been considered, such as the teeth and tonsils, acting over a considerable period of time. An attractive possibility in the etiology of arteriosclerosis is faulty cholesterol metabolism. This occurs particularly with diabetes, gout, and chronic nephritis. The incidence of coronary disease as a complication in these conditions is high. However, cholesterol has not been definitely implicated as the chief factor.

The question of tobacco, coffee, tea, and alcohol is unsettled. It is possible that tobacco, at least, may be a contributing factor, especially in individuals who are sensitive to it. Alcohol, on the other hand, is used frequently in the treatment of angina pectoris and probably is not an etiological factor of any importance.

Occasionally, contributing factors are present which tend to interfere with the coronary circulation at the origin of the coronary arteries. These include diseases of the aortic valve, such as aortic stenosis or regurigitation, syphilitic aortitis, and conditions with vegetation on the aortic valve. Anemia, hypotension, and either extreme bradycardia or tachycardia have also been said to have their effect on the coronary arteries. In the last few years trauma has assumed some importance. Such damage frequently occurs in automobile accidents where the steering wheel is thrown against the chest. Injury to the coronary arteries and the myocardium itself may produce the picture of an acute coronary infarct.

Some experimental work bearing on arteriosclerosis in animals has been done. Hall[2] has been able to produce coronary and myocardial damage by the injection of acetylcholine. His work indicates that the condition may be due to an imbalance between the parasympathetic and sympathetic systems, acetylcholine being elaborated by the parasympathetic nerves.

1. Herrick, J. B.: "Clinical Features of Sudden Obstruction of the Coronary Arteries," *Jour. A.M.A.*, LIX, 2015, 1912.

2. Hall, G. E.: "Excerpts from Experimental Heart Disease," *Annals of Int. Med.*, Vol. 12, No. 7, 907, 1939.

Winternitz, Thomas, and LeCompte[3] studied the vaso vasorum of the blood vessels extensively and pointed out the importance of these tiny structures in the production of arteriosclerosis. Their work touches a broad field that may eventually throw remarkable light on the development of this condition. At one point, however, they conclude that the cause of arteriosclerosis is probably not to be found in any single factor.

PATHOLOGY

In considering the pathology of sclerosis of the coronary arteries, it should first be pointed out that there is no correlation between arteriosclerosis in general and that of the coronary arteries. A patient may have peripheral arteriosclerosis with little involvement of the coronary arteries, or he may have coronary arteriosclerosis with no evidence of it peripherally. The cause of localization of arteriosclerosis in a single organ is a question to be settled. Coronary arteriosclerosis, however, is often just a part of generalized arteriosclerosis. In the coronary arteries themselves, the sclerosis may involve the entire arterial system, or it may be patchy, involving just certain areas of the arteries. The most common site for sclerosis is the first part of the descending branch of the left coronary artery. Ordinarily sclerosis occurs mainly in the larger arteries, the arterioles not being involved. The first part of the artery usually to undergo change is the intima. Here, there is first some proliferation of the connective tissue cells; then lipoid material is laid down in these cells, which eventually causes considerable thickening of the intima. As the process goes on the media is also involved, and gradual thickening and encroachment upon the lumen of the vessel occurs. Calcium may then be deposited and the arterial wall further impaired.

The rate of progress of the sclerosis is extremely important. When the process is very slow, collateral circulation develops. This may be so efficient that there is little effect on the myocardium. Usually, a slow atrophy of patches of the heart muscle occurs, however, with gradual replacement by connective tissue. The entire process may be so gradual that practically no symptoms occur and the heart is able to adjust itself. On the other hand, sudden occlusion may produce severe symptoms. The exact way in which a sudden occlusion is brought about is not well understood, but the following possibilities have been set forth. It may be due to a dislodgment of a sclerotic plaque from the inside of the vessel wall, which is thrown into the lumen of the vessel and obstructs it; a bursting of one of the sclerotic plaques which then occludes the vessel; a subintimal hemorrhage; or an actual occlusion of the vessel by a thrombosis. It is quite probable that there is more than one way in which an acute occlusion may occur.

3. Winternitz, M. C.: Thomas, R. M., and LeCompte, P. M.: "The Biology of Arteriosclerosis," Charles C. Thomas, 1938.

When an acute occlusion occurs an infarct is formed in that area of the heart supplied by the occluded artery. Such an infarct undergoes rather rapid changes. First, there is a necrosis of the ischemic tissue. This is followed by replacement of the necrotic parenchymatous tissue with fibrous tissue in which some accompanying vascularization occurs. When healing is completed, the part of the heart muscle involved is largely replaced by scar tissue. In some instances death occurs so rapidly that necrosis in the heart muscle can not be detected. In other cases, when necrosis is sufficiently extensive, weakness of that part of the heart muscle occurs to the point where a rupture takes place, and the patient dies in a few minutes. This ordinarily appears from seven to ten days after the acute occlusion. In experimental animals, when healing occurs, the process requires at least three weeks. Observations have been made on the rate of healing in the human being, and indications are that in general it parallels that seen in experimental animals although it may take somewhat longer.

There is one further factor that should be included here, and that is the anatomical arrangement of the coronary arteries in different individuals. This has been studied by Blumgart.[4] There are two main coronary arteries, namely, the right and the left. In the majority of individuals the left artery is somewhat larger than the right. In some individuals, however, they are of about equal size, and occasionally the right one is larger than the left. Apparently the individual whose arteries are approximately the same size has the best coronary circulation, especially when there is some impairment of the circulation. The anatomical arrangement of the coronary circulation as a whole may, therefore, play some part in the production of symptoms.

SYMPTOMS

The symptoms of arteriosclerotic heart disease are dependent upon several factors, but especially upon three. These are the rate of sclerosis of the vessels and the location of that sclerosis; the individual anatomic arrangement of the coronary arteries; and, finally, the patient's individual make-up. The first two of these have been discussed. Individual constitutional make-up is very important from the standpoint of the severity of symptoms and interpretation thereof. The pain threshold in individuals varies a great deal. Some people actually feel pain more than others. Individuals with a high pain threshold may have acute, severe coronary disease with only mild pain, while individuals with a low nervous threshold may have excruciating pain. Furthermore, individuals who have a high threshold and have little pain often are unable to locate their pain, hence it is sometime difficult properly to analyze their symptoms.

From a clinical standpoint, it is possible to divide patients with arteriosclerotic heart disease

4. Blumgart, H. L.: Personal Communication.

into four groups. This is the grouping given by Levy,[5] but omitting his last, or fifth group. They are as follows:

1. Those with no symptoms.
2. Those with heart failure.
3. Those with angina pectoris.
4. Those with coronary thrombosis.

(1) The group with no symptoms:

It is sometimes a surprise to find considerable coronary arteriosclerosis in a patient where such a condition had not been suspected. Willius and Brown[6] studied a group of autopsies where considerable coronary sclerosis was present and found that such a condition was not suspected in forty per cent of the cases studied. This means, then, that there are a great many persons with coronary arteriosclerosis who have no symptoms thereof and who die of other causes. The following case will illustrate this point:

Case I.

A man, seventy years of age, who had no complaints, was in good health, so far as he knew, and was taking care of a sick wife. His wife had hypertensive coronary heart disease. A portable electrocardiograph was taken to the home in order to make a tracing. As a matter of interest, and because the electrocardiograph was new, a tracing was also taken on the husband. A study of the tracings revealed, surprisingly, that the husband, who was supposedly in good health, had a tracing which showed just as much myocardial damage as the wife's tracing (Fig. 1). Subsequent examination of the husband revealed that the heart was not significantly enlarged, although a moderately harsh systolic murmur was present both at the apex and over the aortic area. The blood pressure was 148/76, pulse rate 68.

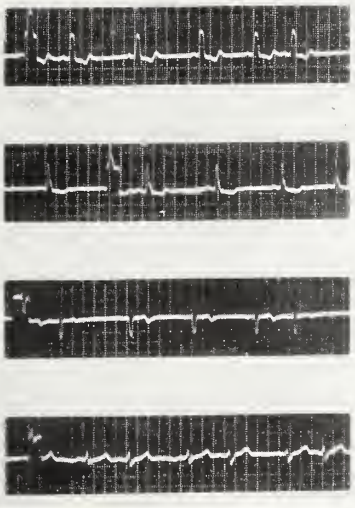


Fig. 1.—Electrocardiogram in Case I, showing a bundle-branch block.

The clinical difference between this husband and wife was that her case was a complicated one. She had rheumatic heart disease with a damaged mitral valve; an enlarged thyroid was present which probably had been somewhat active; her blood pressure had been around 200 for a few years, and she had angina pectoris. In spite of complete bed rest and careful nursing care she passed away about six months after the tracings were taken. The husband, however, is still alive and without symptoms two years later. He is now seventy-two years of age and is moderately active. He represents a case of coronary arteriosclerosis without symptoms.

(2) The group with heart failure:

This group contains many of the patients who in the past have been said to have chronic myocarditis. It includes persons who have a gradual onset of failure for no apparent cause and who usually have characteristic electrocardiographic findings. The symptoms are those of cardiac failure. Patients first notice slight dyspnea on exertion. At the onset this is quite mild. They simply find that they can not do the things they have been accustomed to doing without becoming short of breath. As time goes on, this symptom increases until finally they have to sleep propped up on pillows, and eventually even the slightest exertion may cause some dyspnea. These patients may have attacks of cardiac asthma at night. As a matter of fact, they sometimes will have a few attacks of cardiac asthma at intervals a year or so before other symptoms are present. Frequently some cough is noted. Loss of appetite, belching, and functional gastro-intestinal disturbance is frequently present. Symptoms referable to the heart itself are often absent or occur rather late in the course of the disease. The patient may complain of skipped beats or a fast heart, and occasionally even an irregularity of the heart is perceived by the patient himself. Eventually, as the disease progresses, swelling of the ankles may occur.

On physical examination various grades of heart failure are found, depending upon the state the patient is in or the degree of heart failure at the time he is examined. The heart is enlarged, such enlargement being due more to dilatation than to actual hypertrophy. Systolic murmurs, usually located at the apex, may or may not be heard, and the heart may be either regular with premature beats, or even fibrillating. The blood pressure in pure coronary artery disease should be normal. If it is elevated, hypertensive heart disease is also present. Rales may be present in the lungs. The liver may be enlarged and dependent edema may be present.

From a laboratory standpoint, an x-ray examination of the chest shows enlargement of the heart. Some passive congestion in the lungs may

5. Levy, Robert L.: "Diseases of the Coronary Arteries and Cardiac Pain," The Macmillan Co., 1936.

6. Willius, F. A., and Brown, G. E.: "Coronary Sclerosis: An Analysis of Eighty-six Necropsies," *Am. J. M. Sc.*, 168:165, 1924.

also be present. An electrocardiographic tracing shows changes consistent with coronary heart disease. These may be heart block, bundle-branch block, coronary *T* wave changes, or a combination of any of these. Urine examination will frequently show albumin and perhaps some red blood cells. The following is an illustrative case:

Case II.

A man, sixty-six years of age, was first seen in September, 1938. He came in for a yearly physical examination, which he had been in the habit of having for several years. A complete history was taken, which did not reveal any symptoms so far as the heart was concerned. He had some dizziness, however, which it was thought was probably due to cerebral arteriosclerosis. Physical examination showed that the heart was normal in size and the tones were clear. The blood pressure was 162/96, pulse rate was 64 and was regular. Examination of the eyegrounds revealed moderate arteriosclerosis. X-ray study of the chest showed that the heart was normal (Fig. 2). An electrocardiographic tracing also was reported as being normal (Fig. 4). A diagnosis of generalized arteriosclerosis was made. This case was symptomless, however, unless one would consider the mild dizziness as being due to cerebral arteriosclerosis.

The patient returned in November, 1939, for another yearly physical examination. At that time he stated that he had been in relatively good health during the preceding year until about ten days previously, when he contracted a cold. He was, however, recovering from this. Examination again revealed that his heart was normal in size, and the tones were clear. The blood pressure was 158/94. Following x-ray examination the heart was again reported to be normal. Another electrocardiographic tracing was taken. When this was compared with the tracing taken a year previously, it was noted that the *T* wave in the second tracing was lower in amplitude. Therefore, it was concluded that he had begun to show some early coronary arteriosclerosis. He was so informed and was advised to reduce his activities.

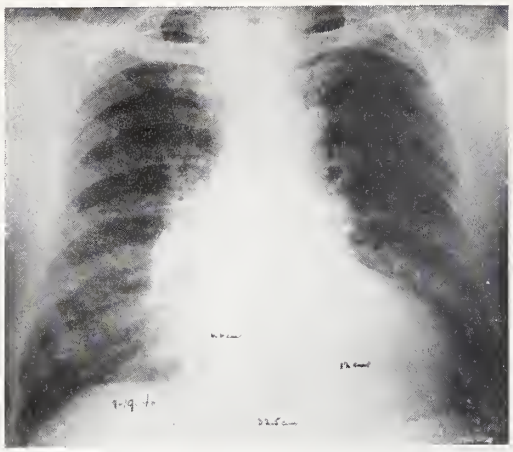


Fig. 3.—X-ray of the chest in Case II, in September, 1940, showing enlargement of the heart.

He returned in September, 1940, for another yearly examination, although he was partly prompted to do so because he had not been feeling well. He stated that for a month he had been having some shortness of breath, noticed particularly at night. This had interfered somewhat with his sleeping.

Examination showed that the heart was somewhat enlarged, about 1 cm., and the tones were clear. The blood pressure was 142/98. Some moist rales were present in the base of both lungs, and the liver was down two fingers. Obviously, he was in early heart failure. An x-ray of the chest confirmed the enlarged heart (Fig. 3). An electrocardiographic tracing showed that the *T* wave had practically disappeared in Lead I, that it was almost iso-electric (Fig. 5). This is electrocardiographic evidence of coronary arteriosclerosis.

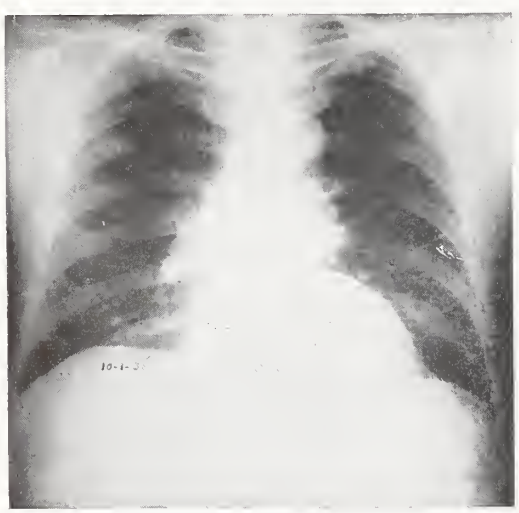


Fig. 2.—X-ray of the chest in Case II, in September, 1938. The heart is normal in size.

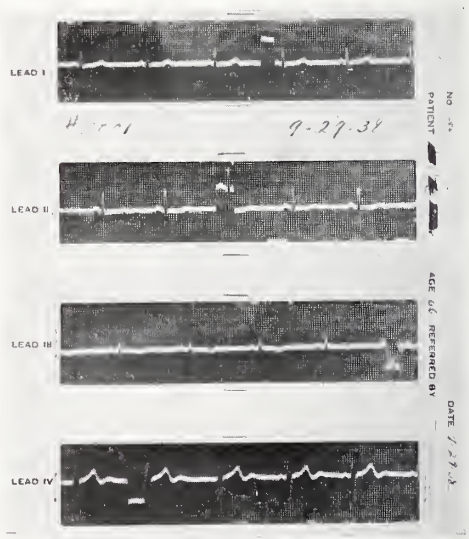


Fig. 4.—Electrocardiogram in Case II, in September, 1938. Complexes are within normal limits.

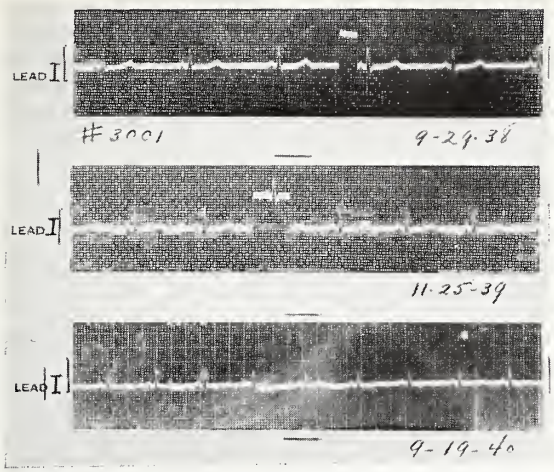


Fig. 5.—Electracardiagram in Case II, shawing Lead I anly an three successive years. There is a pragressive lowering af the T wave.

He was advised to stop work entirely, lie down for an hour after each meal, and spend at least ten hours in bed each night. He was given a mild sedative, digitalis, aminophylline and vitamin B. On these measures he improved considerably, and the signs of heart failure disappeared. He continued, however, to rest and take medication. This case demonstrates the gradual onset of heart failure due to coronary arteriosclerosis not complicated by any other condition.

(3) The group with angina pectoris:

In this group patients complain of attacks of substernal pain. It is very important, however, to be able to recognize, clinically, real angina pectoris pains from other pains in the chest. Typically, the distress of angina pectoris is located beneath the sternum, most frequently beneath the upper half, but it may be present under the lower part and even to the left of the sternum over the precordium. The severity of the distress varies. It may be a mild suffocating sensation in some patients, others complain of more distress, and some complain of a grasping or squeezing sensation in the chest. The radiation of the distress is important. It may remain localized and not radiate at all. Most often it radiates into the left shoulder, into the left arm, and particularly the ulnar side of the left arm, extending down into the little finger in some instances. In some patients, however, the distress radiates upward into the neck and occasionally even into the jaw, particularly the left jaw. Occasionally, patients are seen who have no distress in the chest at all, but simply have a peripheral distress, as in the arm. In such instances, the time relationships of the distress are what enable us to say that it really represents angina pectoris.

Perhaps the most important factor about angina pectoris is the cause of the distress, the length of its duration, and the factors which relieve it. Typically, the distress is brought on either by effort, such as walking or climbing the stairs; by emotional disturbances, such as becoming angry or unusually excited; by overeating; and by exposure to cold. The most typical type is that which occurs in a patient walking in cold weather against the wind. The distress usually lasts just a few seconds, but may be ten or fifteen minutes at the most. It is, therefore, quite transitory. Relief is obtained by rest. If the patient is walking, he often just stops and either sits down or leans against a support until the distress is gone. This is a very typical feature of angina pectoris. One should be careful about making such a diagnosis unless this characteristic relief is obtained. If the patient has had several such episodes, he frequently is given nitroglycerin tablets to be used during an attack. Such a tablet placed beneath the tongue gives dramatic relief. The above factors, then, must be present for the most part before the diagnosis of angina pectoris is justified. On physical examination it frequently is impossible to demonstrate any abnormal findings. The patient may be normal in every respect from a physical standpoint. Laboratory findings may be of some help, particularly the electrocardiogram. In the majority of cases there are characteristic electrocardiographic findings, particularly coronary *T* wave change. This will be present in approximately seventy-five per cent of the patients, which means that in a few even the electrocardiograph is normal. Occasionally if an electrocardiogram is taken immediately after an attack, abnormalities will be found, although the electrocardiogram has been normal between attacks. No other laboratory findings are of any aid. An example of this is as follows:

Case III.

A woman, fifty-eight years of age, was placed in the hospital with a preliminary diagnosis of heart trouble. Because of lack of time it was decided to examine her first, order some laboratory work,

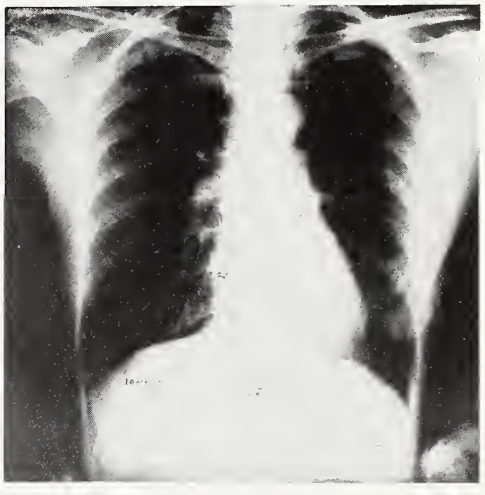


Fig. 6.—X-ray of the chest in Case III. The heart is normal in size.

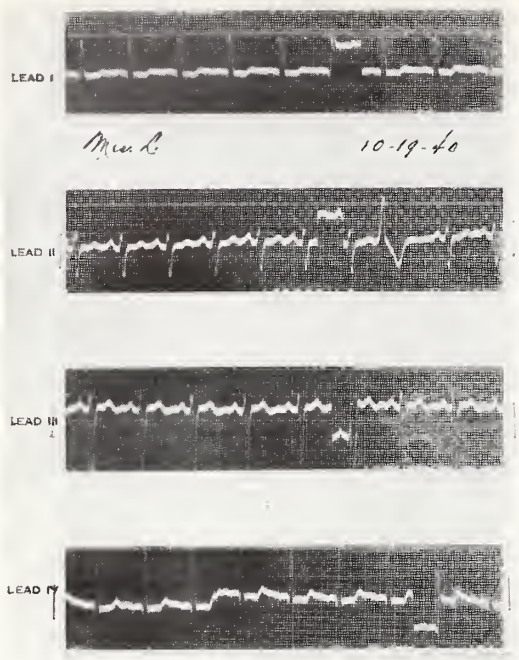


Fig. 7.—Electrocardiogram in Case III. The T wave in Lead I is diphasic, and the greatest amplitude of the QRS complex in Lead II is below the iso-electric line.

and then take the history later. Such a procedure is not recommended, but proved to be very enlightening in this particular case.

Complete, careful physical examination was entirely normal. The heart was not enlarged, the tones were clear, and no decompensation was present. The blood pressure was 134/78, pulse rate 76. An occasional premature beat was present. From this examination it was thought that heart disease probably was not present. An x-ray of the chest and an electrocardiogram was ordered. The following morning the x-ray was examined, and the heart and lungs reported as normal (Fig. 6). Study of the electrocardiogram, however, was quite a surprise. It revealed marked coronary disease (Fig. 7). A history was then taken which revealed that the patient had been having attacks of angina pectoris. For some time these had occurred on exertion, such as walking, but for more than two weeks before entering the hospital such attacks had occurred even in bed—the so-called angina pectoris decubitus. Such a condition represents far advanced arteriosclerosis with a poor prognosis.

This case demonstrates that serious coronary artery disease can be present with normal physical findings, but with the symptoms of angina pectoris.

(4) The group with coronary thrombosis.

This is the group with marked acute symptoms due to the relatively sudden occlusion of one of the rather large coronary arteries. Such an attack comes on suddenly and may occur at any time, either during exertion, while resting, or even while the patient is sleeping. The location of pain is similar to that noticed in angina pectoris; that is, substernal with similar radiation. The pain is apt to be quite excruciating. Instead of lasting just a few minutes, however, as angina pectoris does, the pain of coronary thrombosis persists for hours—even as long as twenty-four or longer. The patient is markedly prostrated by this distress. With it he may have nausea and even vomiting.

Examination ordinarily shows, first, that the patient is in shock. The color is ashen, the patient appears anxious, and cold perspiration is frequently present. The pulse is ordinarily rapid, and the blood pressure is low, frequently around 100. The condition exists for twenty-four to forty-eight hours, ordinarily, after which the shock becomes less pronounced and the blood pressure begins to return to normal. A few days after the occlusion some fever is present and, occasionally, in about fifteen per cent of the cases a pericardial friction rub is heard, usually to the left of the lower end of the sternum. Leukocytosis appears, usually around 15,000. This is a typical attack of coronary occlusion. However, atypical attacks occur. Occasionally a patient may not have any pain at all but may simply experience weakness and some dyspnea. At night, an attack of acute pulmonary edema may really represent a coronary occlusion without any pain. As stated earlier, the constitutional make-up of an individual is very important from the standpoint of the localization and severity of the pain. In patients with a high nervous threshold, therefore, the location of the pain may be quite bizarre. However, its persistence, together with evidence of shock, often makes one suspect coronary occlusion.

Electrocardiographic changes frequently confirm clinical impressions. Usually a single electro-

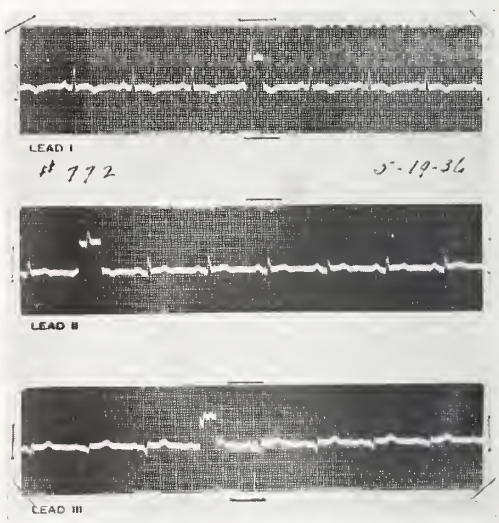


Fig. 8.—Electrocardiogram in Case IV, showing a rounded, or convex, ST segment with inversion of the T wave in lead I compatible with an anterior coronary occlusion.

cardiogram is sufficient for diagnosis, such an electrocardiogram being taken twenty-four hours or more after the occlusion. Usually it is possible to state whether the occlusion has occurred in an anterior or a posterior artery, but not always. In some instances it is necessary to take a series of tracings, twenty-four to forty-eight hours apart, in order to be sure of the diagnosis. If that is done, changes from tracing to tracing on the electrocardiogram, usually of a striking degree, will be apparent. Such rapid changes in the electrocardiogram are diagnostic. In a few instances a slight amount of sugar is present in the urine for a short time following an attack of coronary thrombosis. Illustrative cases are as follows:

Case IV.

A man, forty-four years of age, suddenly experienced an excruciating pain in the front of his chest, which caused him to sweat. He drove to the office of a nearby doctor, who told him he had had a coronary occlusion. The doctor gave him two hypodermics of morphine within a short interval, and advised that he enter the hospital. He did not do so, however, for about forty-eight hours. While in the hospital he stated that all his distress had

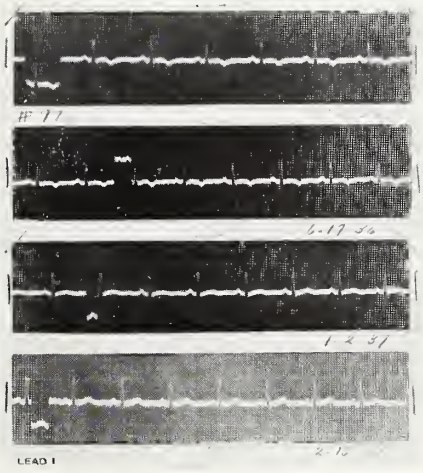


Fig. 9.—Lead I only of successive electrocardiograms in Case IV, showing progressive improvement. In the Lead I of 2-16-37 the T wave has returned to normal.

disappeared, and the physical examination showed nothing abnormal. The first electrocardiogram taken also was normal. Because of the very suggestive history, he was kept in the hospital and another tracing was taken. This showed an inversion of the *T* wave in Lead I, typical of an anterior coronary artery occlusion (Fig. 8). Subsequent tracings were taken at intervals, each successive tracing showing improvement until the tracing was again normal (Fig. 9). Two and one-half years later this patient was examined at the Northwestern University Medical School and at the Mayo Clinic, where electrocardiograms were reported as normal. The diagnosis of coronary occlusion was doubted until the series of electro-

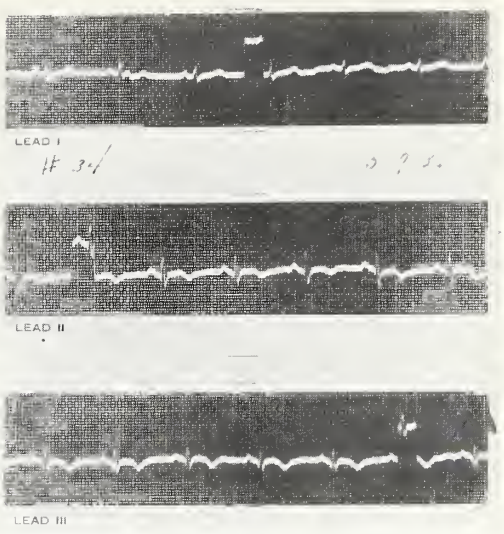


Fig. 10.—Electrocardiogram in Case V, showing inversion of the T wave in Leads III and II, compatible with a posterior occlusion.

cardiograms showing the recording were sent to the Mayo Clinic for examination.

This case demonstrates an anterior occlusion in a young man with apparent complete recovery.

Case V.

A man, fifty-two years of age, suddenly experienced pain in the chest that caused him to leave his work and come directly into the office, arriving about two o'clock p. m. This pain was so severe that he could hardly stand it. It was located all through the anterior part of the chest, in the back and both arms. He was pale and he was perspiring. Three one-quarter grain doses of morphine were given before he was relieved. He was kept in the office, lying down, for the remainder of the afternoon, and then was placed in the hospital.

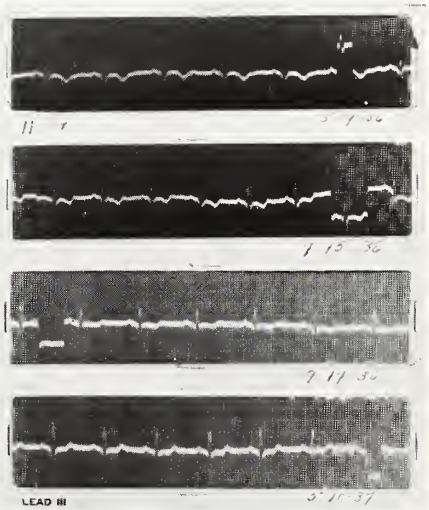


Fig. 11.—Lead III only taken successively in Case V, showing progressive improvement. Lead III, of 5-10-37, has an upright T wave.

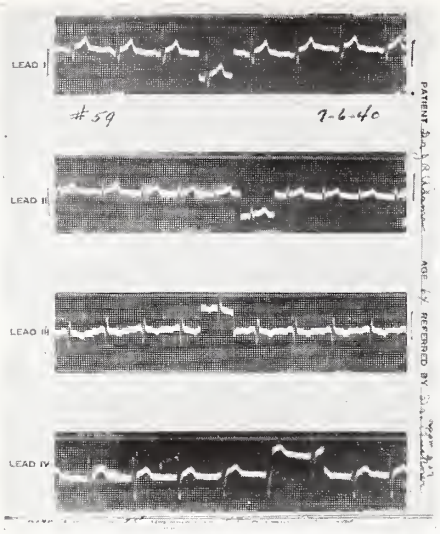


Fig. 12.—Electrocardiogram of Case VI, showing a slightly elevated take-off of the ST segment in Leads I and IV.

An electrocardiogram was taken which showed a coronary occlusion involving the posterior coronary artery (Fig. 10). Subsequent tracings were taken at intervals, each showing improvement, until the electrocardiogram was again normal (Fig. 11).

This case shows a posterior occlusion with apparent recovery.

Case VI.

A doctor, aged sixty-four, had pain in his chest, which he thought was pleurisy. It was difficult for him to localize the pain, although the greater part of it was in the right chest, especially in the region of the right scapula, the ridge of the right shoulder, and the back of the neck. Because he appeared pale, as if he were in some shock, was in severe distress, and because there was some irregularity of his pulse a coronary occlusion was suspected. He was placed in the hospital and about twenty-four hours after the onset an electrocardiogram was taken. The first tracing showed slight changes from the normal, but was not diagnostic (Fig. 12). A second tracing, taken thirty-six hours later, showed definite changes which, when compared with the first tracing, was indicative of coronary occlusion (Fig. 13).

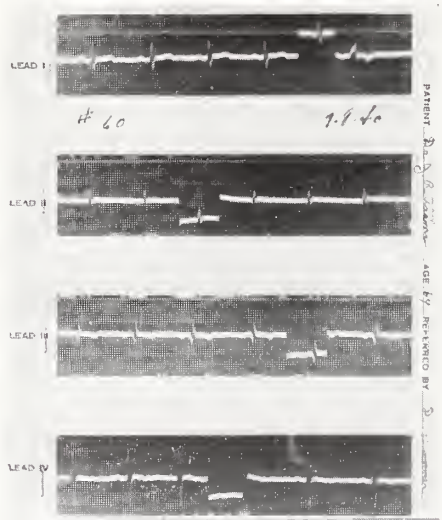


Fig. 13.—Electrocardiogram of Case VI, taken two days after that shown in Fig. 12. There is a marked lowering of the T wave in Leads I and IV.

This case demonstrates, first, the atypical location of pain that sometimes occurs in coronary occlusion, and secondly, the necessity for more than one tracing in some instances before a diagnosis can be made.

COMPLICATIONS

One might say that in some cases either coronary thrombosis or gradual heart failure is a complication of arteriosclerotic heart disease. However, we usually think only of the complications that occur after an acute coronary occlusion. These may be said to be either immediate or delayed. An immediate complication may be a complete standstill of the heart during which, of course, the patient dies; or ventricular fibrillation may occur, as it often does, followed by rather rapid death in most instances. Occasionally, however, when the proper medication is at hand ventricular fibrillation may be controlled. Other arrhythmias which are not so severe, such as auricular fibrillation, may also appear.

Later complications include auricular fibrillation, which may not appear for a few days after the occlusion occurs. A more serious complication, however, is heart failure. This tends to occur more frequently in hearts that are enlarged before the occlusion actually occurs. Ordinarily, it is said that if the heart is normal in size, failure seldom occurs after an occlusion.

Another complication is embolism. The mechanism of this is as follows: a thrombus forms on the endocardial surface of the heart, in the region of the myocardial infarct. Parts of this clot may break off and be carried either to the brain, spleen, kidney, mesenteric vessels, or other places, causing symptoms of vascular occlusion wherever such emboli lodge. The most frequent is the cerebral embolus.

A very serious late complication is rupture of the heart. This occurs when the necrotic area is rather large and the necrotic tissue simply is not able to withstand the intrinsic pressure of the heart. After healing of an infarct has begun, at times the tissue of the infarcted area is not sufficiently strong to maintain the rigidity of the cardiac wall. When this occurs, a bulging at the infarcted area occurs and an aneurysm of the heart wall develops. This is a very rare complication, difficult to diagnose, and is usually recognized only on x-ray examination, particularly fluoroscopic examination.

PROGNOSIS

Certain generalizations can be made in regard to prognosis, although it is well recognized that

individual prognoses are unsafe. It is my impression that the more one works with heart disease the more optimistic one becomes. All of the illustrative cases presented in this paper are still alive, except the one who passed away from a ruptured heart. This, in itself, creates optimism.

The four clinical groups must again be considered. Those without any symptoms, of course, may live for years. Of the other three groups, those with angina pectoris offer the longest life expectancy. White[7] states that on the average patients with angina pectoris live seven years after the first attack, varying from a few seconds to more than twenty years. The group offering the next best prognosis are those with coronary thrombosis, averaging around four years. The group in which the prognosis is poorest is that with the gradual onset of heart failure, few of these cases surviving longer than two years.

TREATMENT

From what has been said previously, it is obvious that the treatment of coronary heart disease depends upon the group in which the patient can be classified. In the first group, that is the one without symptoms, it is questionable whether or not any treatment is indicated. However, one might consider the following points: regulation of the individual's life, such as resting, particularly after meals, and securing a sufficient amount of sleep continuously. In case the individual is overweight, it would be very advisable to limit the diet, and thus reduce the weight to within normal limits. Drugs that might be considered are, first, aminophylline. There appears to be no question but that, experimentally, aminophylline does cause dilatation of the coronary vessels. This could be given in doses of one tablet after each meal. It is quite probable that an individual with coronary disturbance, but without symptoms, can prolong his life by taking aminophylline. Secondly, when it appears that gradual failure may be more probable, which is a matter of clinical judgment, digitalis in relatively small doses might be of some value. Finally, since it appears that most adults are deficient in vitamin B and that this deficiency can affect the heart, it seems advisable to give such individuals vitamin B, probably the vitamin B complex, in rather large doses.

When we come to the second group, however, active treatment is essential. The treatment for heart failure, whether it is due to coronary disease or other causes, is virtually the same. The patient should be put at bed rest. Individual judgment is required in this respect, but the average patient fares best on complete bed rest. Digitalis is the drug par excellence. Ordinarily, it is possible to take a few days for digitalization, in which case the patient could be given four or five tablets of one and one-half grains of digitalis daily until twelve or fifteen tablets have been taken, after which it will be necessary to reduce the dose. Ordinarily the maintenance dose is one tablet daily and should be continued indefinitely. Toxic effects include slowing of the heart, coupled beats, and even heart block. Nausea and the passing of large quantities of urine may also indicate full digitalization.

The diet should be light, depending, of course, upon the severity of the failure. In the rather extreme cases the diet could be limited to the so-called "Carroll diet," which is a glass of milk four times a day. In all cases the diet should be rather light but general, with small portions. Salt restriction ordinarily is advisable. Usually the amount of salt that is used in ordinary cooking is allowable, but none whatever should be used from the saltcellar at the table after the food is brought in from the kitchen. Fluids may be restricted, but not too greatly. Ordinarily, 1,500 to 2,000 cc. are allowable. Some attention to the bowels is at times necessary, but harsh cathartics should not be used. Milk of magnesia, or cascara, in small doses may be necessary. Oil retention enemas, or small water enemas, may be used —depending somewhat upon the patient and his ability to cooperate in this respect. Sedation is often advisable, such as phenobarbital, one one-half grain tablet before breakfast, one before supper, and one at bedtime, or a bromide mixture, such as elixir of triple bromides—one teaspoonful after breakfast, after supper, and at bedtime. This is particularly necessary in an apprehensive patient.

When marked edema is present, rather drastic measures frequently give a great deal of relief to the patient. These include actual removal of fluid, such as that contained in an hydrothorax, and the use of diuretics. Salyrgan, given intravenously once or twice a week, is often of great help. As a matter of fact, the judicious use of salyrgan frequently saves an individual's life, at least temporarily. In other cases where it seems that a standstill in the patient's progress has been reached, yet there is some evidence of cardiac decompensation, salyrgan, properly used, often completes the patient's recovery. It can be continued once every week, or every two weeks, for some time without bad effects. Ammonium chloride is occasionally helpful; this is given by mouth, usually at least ninety grains a day, and may be all that is necessary for diuresis. Ammonium chloride tends to acidify the urine. It can be taken for a long time.

In extreme cases, oxygen for dyspnea and cyanosis may be of some value. It is to be remembered, however, that an oxygen tent tends to reduce the patient's temperature and, therefore, has a cooling effect. On bed rest and the measures suggested, the heart may again become compensated. If that is the case and the patient recovers, then education of the patient in regard to possible precipitating factors of heart failure in the future

7. White, Paul D.: "Heart Disease in General Practice," National Medical Book Co., 1937.

is indicated. A few of these include an avoidance of infection, overexertion, obesity, and emotional strain.

In the third group, that of angina pectoris, a slightly different approach to the treatment is necessary. Frequently patients with angina pectoris are up and about and are simply inconvenienced by the attacks of distress that occur in their chest. Even so, the seriousness of the situation demands rather vigorous action. As a matter of fact, one can look upon angina pectoris as a form of heart failure. It is a failure in that there is a temporary insufficiency of the blood supply to the heart muscle, which is responsible for the pain. One of the first considerations is regulation of the patient's life with sufficient rest, so that he does not approach the point of exertion where attacks occur. In some instances a cutting down of the usual daily activities is all that is necessary; in others a period of bed rest is desirable. Such a period of bed rest may adjust a patient to his illness, so that he is able to conduct himself properly in the future. The individual must be instructed to do things leisurely. It is well for him to take rather frequent vacations—in the average case perhaps a month twice a year. It is important that such vacations be restful, rather than vacations with much excitement and activity. Light exercise is usually allowable, such as leisurely fishing, and even golf frequently can be permitted if it does not produce distress. The patient should be instructed, however, to play a slow game and not one that is too competitive. In case light exercise is not even permissible, massage may be of some value. If the patient is obese, or even moderately overweight, reduction in his weight is absolutely necessary. It is advisable for all such patients to stop smoking. Alcohol may be taken in moderation, especially in the evening, for sleep. In general, the patient should follow the five-word motto, which is: "No hurry, worry, overexertion, overeating, or severe weather."

Drugs that can be considered are, first, light sedatives, such as phenobarbital tablets, either one-quarter or one-half grain, one tablet given before each meal and at bedtime. The iodides have been used for years and may be of some value. If so, they should be given in doses of five drops twice a day. Aminophylline may be of some benefit. It probably has not been used in sufficiently large doses—three grains dissolved in water after each meal could be tried. It is thought that if there is to be any benefit from aminophylline, it will be evidenced within two weeks' time. Vitamins are probably desirable, particularly vitamin B.

The patient should be instructed regarding the real attack of angina. He should be told to stop at once whatever he is doing and rest. He should also be given some nitroglycerin tablets, usually around 1/150 grain each, to be placed under the tongue at the beginning of an attack. As a matter of fact, such a nitroglycerin tablet could be used before a necessary exertion in order to prevent an attack. This could apply before bowel movements. In very severe cases, such as angina pectoris decubitus, where nothing can be found to give the patient even symptomatic relief, injections of the sympathetic nerve, alongside the upper thoracic vertebrae, can be done. In cases where this is really indicated it seems to give very gratifying results.

The treatment of coronary thrombosis presents another problem. The attack is usually acute, severe, and requires prompt action. One should be sure, however, to establish the diagnosis, for such things as gallstones and perforated peptic ulcers have been mistaken for coronary thrombosis, and vice versa. Once the diagnosis is established, the first point of consideration is immediate treatment. This consists in control of the pain and treatment of shock. The pain may be controlled by opiates. Morphine can be used but sometimes causes vomiting, which, in itself, may have a bad effect. Pantopon is preferred because it is less apt to cause vomiting. It can be used in one-third grain doses, repeated as often as every half hour until some relief is obtained. A great deal of judgment is necessary in this respect. During the last few years oxygen has been found to be a helpful factor in the relief of pain. The patient may either be put in a tent, or a nasal catheter may be used.

The state of shock is treated first by rest. It is well to have the patient in bed, flat on his back, but his head may have to be elevated some because of the excruciating pain. Heat should be applied to the body. Stimulants, such as caffeine, could be used, but rather judiciously. Such stimulants sometimes cause arrhythmia. Recovery from shock should progress rather slowly, and the use of stimulants must be cautious. One can use nitroglycerin, but not more than two 1/100 grain tablets should be used. If this is not effective, larger dosage will be of no help. In general, the patient should be kept in one place and not moved unnecessarily, at least until the shock is over. At best this may require several hours. He should then be moved to the place where it is possible to keep him, say for something like six weeks, without being further disturbed. Nursing care should be provided as soon as possible, and a nurse should be selected who will give great care to details. Such details include disturbing the patient as little as possible and not allowing him to do anything for himself that is of any consequence. The bed rest should be enforced for at least a month.

The intake of fluids may be of some importance. Little is necessary in the first twenty-four hours. After that 1200 cc. daily may be as much as is necessary, and even this amount should not be forced upon the patient. When recovery is sufficient he should be allowed a small amount of broth, and then small feedings certainly for the first two weeks. The patient should be fed, and should not be allowed to feed himself.

The bowels may require some consideration. No enemas or laxatives of any kind should be used for the first twenty-four hours. A patient can die during the effort necessary for a bowel movement. Gas may be relieved by a rectal tube. Eventually mild laxatives, such as milk of magnesia or cascara, may be necessary and are usually better than enemas. Either oil retention enemas or plain water enemas may be used, depending upon the individual patient. Visitors should be excluded, even members of the family. In severe cases only one member of the family should be allowed to see the patient for a few minutes only—perhaps every six hours.

Ventricular fibrillation, which is apt to occur very shortly after the initial occlusion, is treated by the use of quinidine. In some cases quinidine can be given in six grain doses every two hours until results are obtained. In desperate cases it may be given intravenously, as much as thirty grains in 500 cc. of salt solution, injected slowly. Usually aminophylline is not indicated during the acute attack but may be of some value after the acute symptoms have subsided. It may, however, be considered for intravenous administration even during the acute attack.

Heart failure may occur, and, when it does, the treatment is the same as that outlined previously for heart failure. As the patient improves other questions naturally arise. In the ordinary case it it is necessary to keep the patient in bed for one month. The second month he is gradually allowed to be up, and a third month is necessary for a complete convalescence. Three months ordinarily is the minimum time required for recovery from coronary thrombosis. In some individuals, however, even a year is necessary. The progress of recovery can be determined by the patient's symptoms and general feeling of well being, by the sedimentation rate, by the leukocyte count, and to some degree, by the electrocardiogram. It is well to keep a patient in bed at least until the sedimentation rate is normal. Alcohol may be allowed, especially during convalescence, particularly in older people. It may be especially valuable for sleep. Tobacco should not be allowed. Finally, if the patient is overweight, his weight should be reduced to either normal or below normal.

There is one further point in regard to digitalis. In case it becomes necessary to use digitalis during an attack of coronary thrombosis because of heart failure, it is quite probable that such a patient will require a maintenance dose of digitalis the remainder of his life.

Lately, tincture of belladonna leaves has been advised because of its atropine content. This should be used in a dosage sufficient to secure physiological effects. Atropine tends to diminish the parasympathetic nerve system and is used largely because of the experimental work of Hall.[2]

SOCIAL SECURITY MEDICAL PROBLEMS*

CHARLES H. PHIFER, M.D.†
CHICAGO

The past decade has seen the greatest economic upheaval in the history of the world. During this time the entire social structure of the United States has been completely transformed, and millions of people in all walks of life have become destitute.

Many legislative changes, both federal and state, became mandatory during this time to provide the bare necessities of life for this army of people. Most of these laws were passed to meet the demands of an emergency; they were not intended as a permanent cure. The progenitor of all of these was Federal Rules and Regulations No. 7. Its basic factors have constituted the fundamental principles for regulating most of our welfare programs since that time. While our economic conditions have improved to some degree, there still remain millions of people who are dependent upon governmental support.

Many of the laws passed during this time have had a far-reaching influence upon the practice of medicine. The passing of Federal Rules and Regulations No. 7, however, established the right of the governmental ward to a free choice of physician, a factor that has been most constructive.

The passing of the Social Security Act in 1935 was the first national recognition of the necessity for a program for permanent care. This Act changes the responsibility for the administration of welfare programs from local governmental units to the state departments of public welfare. In the past few years we have seen the majority of our states pass enabling acts to comply with the different categories of the Social Security Law. It is obvious that it is impossible for any one agency to assume the responsibility of carrying the financial and administrative load to compensate these governmental wards. Likewise, we have seen the drafting of welfare programs for those who come under Social Security. These programs vary somewhat in individual states, depending upon the state's case load, as well as its requirements in the various categories, or the percentage of population in its urban and rural communities, also its facilities for giving general

* Presented before the Secretaries' Conference held at Indianapolis on January 25, 1942.

† President, Illinois State Medical Society.

welfare care. While most of the programs differ in some degree, medical care is considered to be one of the essentials of life and is provided for.

The successful administration of these welfare programs involves many points pertaining to the social status of the clients, as well as their health. Complete co-operation of the Director of the Department of Public Welfare and his representatives is essential. There should be a harmonious relationship and co-operation with your state medical society and the members of the medical profession. The solution to many difficult problems in this type of administration is found in careful medical guidance. Each category of the Social Security Act contributes medical problems peculiar unto its own. In a general way the Old Age Assistance group, while presenting many angles for consideration, is not so complicated to administer, medically, as that of the Aid to Dependent Children. In the Old Age group the award is made on the basis of age and dependency; the question of incapacity does not arise as a factor of qualification. The diseases found are those peculiar to elderly people —diseases of the eye, such as cataract, or defective vision; diseases of the mouth and teeth, necessitating dentures; diseases of the cardiovascular, respiratory, gastro-intestinal and central nervous systems; herniae; arthritis; fractures, especially of the femur; malignancies; diseases of the skin, gallbladder, prostate or uterus, or of the genito-urinary tract. Many of these cases need practical nursing or custodial care, this probably more frequently than graduate nursing.

I think the majority of the medical profession will agree that because of the infirmities of this group and the hardships of transportation, most of this type of medical care would be more efficiently rendered in the home of the patient or the office of the physician. They should not be forced to attend dispensary clinics.

The Aid to Dependent Children program presents many problems not found in either of the other groups of Social Security recipients. This applies equally to administrative and medical questions. If a medical advisory committee is to fulfill its obligations in drafting a constructive health program it must give particularly serious consideration to the many medical policies that influence administration so far as this group is concerned. It must be remembered that this program was designed primarily to benefit underprivileged children. The awards are made on the determination of incapacity of the parent, either physical or mental, the determination to be based on medical examination. If the needy are to receive the benefits of the limited funds available, the impostor and the malingerer must be denied. Collusion must be prevented. The physical examination in each case should be made by a competent physician, who must render a good, complete individual report that will give the local medical advisory committee, as well as the state medical committee and the department of public welfare, a reliable report upon which to establish the degree of incapacity. Many of these records will be institutional reports and, while dependable, must be kept up to date if they are to be constructive. In mental cases a psychiatric examination will, no doubt, often be required.

It is imperative that physicians performing the examinations to establish dependency appreciate the fact that the funds for this program must be carefully protected; that the diagnosis of incapacity must be just and sound; that the basis on which it is made must be no different than it would be if the client were earning his own livelihood. If incapacity is found, it should be determined whether it is partial or complete, temporary or permanent, or remedial.

There evolves another major responsibility in the medical care of dependents. Too frequently syphilis, tuberculosis and other diseases are found in the applicant and in his dependents. The medical care of these children, as well as segregation if required, must be given primary consideration. In the case of other diseases found in the dependents we can list those common to infancy, childhood and adolescence. I am not in accord with the feeling that these children should be cared for in clinics. I appreciate the fact that because of lack of funds this may at times be necessary. It is, however, my opinion that much can be done from the standpoint of psychology if these underprivileged children are removed from clinic environment. In the clinic, masses of people congregate daily to discuss their ills and misfortunes. You may say that this is idealistic, but I do not believe we can estimate the great improvement in morale that occurred in relief patients by our maintaining the patient-physician relationship.

The determination of employability and the recommendation of change in vocation, as well as the establishment of a plan for rehabilitation, are medical problems to which every medical program for Aid to Dependent Children must give careful consideration.

I have not included the category of the blind in this discussion for in the state of Illinois we have not as yet passed an enabling act to include this type of client.

There has been much confusion in the minds of many physicians regarding the manner in which payment is made for his services. There also has been much constructive criticism regarding this matter. I would like to review briefly the manner in which payment is made in most indigent medical care programs:

1. Service in home provided by salaried physicians.

2. Service in home given on a fee-for-service plan, for which payment is made directly to the physician or medical agencies by the assistance agency.

3. Variation of fee-for-service plan to a pool or a co-operative plan. In this type of medical care each individual contributes a set amount to a pool or plan. Physicians are paid on a prorated basis from the pool funds. Some states have permitted recipients of Old Age Assistance to set up a co-operative plan on a county-wide basis.

4. The payment for services is not made directly to the physician by an assistance agency but is included in the recipient's award, so that he may meet the cost of his own medical care.

All public assistance plans falling within the categories of care set up by the Social Security Act are based on an unconditional cash grant paid directly to the recipient. For medical needs some states still continue on a fee or service plan, by the use of state or local funds. Other states have included allowances for all medical needs in each cash grant and expect the recipient to plan for and meet his own needs.

A review of all the programs that provide general medical care for governmental dependents shows that they are founded on the same policies that governed the Federal Emergency Relief program in 1933, which prohibited the use of federal funds for the payment of hospital bills covering general institutional services.

In Illinois our enabling laws covering Old Age Assistance and Aid to Dependent Children do not permit the client to receive public assistance from state political subdivisions or municipal corporations, except for medical, surgical or hospital service. Under a recent amendment to the Illinois Pauper Act responsibility for support of persons not coming within the definition of pauper is placed upon the governmental unit in which he resides; thus his support falls back on county, city, village, incorporated town or township. If the Division is unable to provide complete medical care for an Old Age Assistance recipient within a maximum of $40.00 a month, the County Department of Public Welfare may assist the recipient to secure from the township supervisor that part of the bill which the recipient cannot pay. Also, the supervisor of township, county, city, village or incorporated town may be called upon to pay the medical bill should the recipient die before payment of the bill is completed; or if, following an increase in his award for medical care, his general expenses become so great that he is unable to make payment for care received, the bill for hospitalization is authorized by the governmental unit.

It is the concensus of opinion of those people who are interested in the working application of welfare programs under the Social Security Act that if the law is to achieve the purpose for which it was designed, supplementary legislation—either federal or state—will be required. Such legislation could make the Act more flexible, or provide additional funds for medical care programs. It is stated that the Social Security Board is planning to propose amendments to Title I of the Social Security Act.

1. These changes concerning medical care would permit direct payment by the assistance agency to a practitioner or vendor for medical services or supplies given to a recipient of Old Age Assistance. A fund for medical care would be established by the State by allocating a maximum of $1.50 per month per recipient, with the Federal Government matching half the amount. The law would be implemented by rules and regulations established by the Social Security Board, which would define medical care in very liberal terms and which might include care in public hospitals and convalescent homes. In the event that this is not done, state legislatures should appropriate state funds unmatched by federal funds to provide for medical care and to be used to pay the source of medical aid direct under a fee-for-service plan.

Among the many medical problems is the necessity for lenses and dentures for the aged. Inasmuch as many eye conditions are due to the general physical condition, all eye examinations should be made by a physician instead of an optometrist.

The question of appliances, such as trusses and braces, should have individual consideration. The protection of funds in the purchase of glasses, dentures or appliances is essential, and expenditures should be guided by determination of the individual patient's needs; the exceptional case should have special consideration. Rules and regulations must be set up for these procedures.

With reference to fees for medical and surgical services it should be remembered that these patients are government wards and, although standard fees may be set for certain medical and surgical services, there are some cases, such as complicated fractures, which need long and constant care, and fees should be evaluated on the type and nature of service required in that case. I believe that the best type of service can be obtained through the individual physician rather than in dispensary clinics.

It has been said that some physicians are apprehensive of these medical programs because of their socialized aspect. We should remember, however, that it is not compulsory for any physician to undertake this work; his decision to do so is optional. While the remuneration derived therefrom may not be comparable to that from his select clientele, the intention is to try to compensate him, in a measure, for his services to patients in these groups. In my opinion there is a vast difference between rendering medical care to Governmental wards under a carefully regulated medical program which has been drafted carefully by your state medical societies and the assisting agencies, and giving service under a program which functions by National and State legislation and embraces compulsory medical care for all classes of people.

It is true that compensation for medical care

is limited in all programs for public assistance. We should be reminded that recipients are awarded only sufficient money to furnish the bare necessities of life: food, clothing, housing and medical care. It must not be forgotten that the load at the present time is at its minimum, and that statistics indicate an inconceivable increase in number. In the Old Age Assistance program, Illinois is now assisting approximately 150,000 aged persons; this represents 26.4 per cent of the total number of persons sixty-five years of age and over who are residing in the state. However, in the percentage of aged population receiving assistance, there are twenty states in which there are more recipients than in Illinois; in actual numbers, the states of California and Texas have more dependents than Illinois.

Under Aid to Dependent Children, we are making payments to 19,000 family units. This means, in numbers, that 44,000 children are receiving benefits during this month.

During 1940, the assistance granted to Old Age pensioners in Illinois required almost double the amount of money required to operate the twenty public-welfare institutions with 55,000 inmates, and the twelve divisions and other services of the Department of Public Welfare.

How best to provide this care is a leading question in every state medical society. It is my opinion that the best solution of the problem can be attained through a state-wide welfare program carefully drafted by representatives of the department of public welfare in conjunction with a carefully selected medical advisory committee of your state medical society. Constructive thought should be given to the objectives to be gained by such co-operation. All policies should be clearly defined. Local medical advisory committees should be appointed to administer the medical policies in their respective counties; the selection of the proper personnel of these committees is most important, inasmuch as the success of the program depends upon their activity. These local committees should be co-ordinated through the state medical advisory committee. It is necessary that the members of the local committees devote sufficient time to become familiar with the policies and regulations of the program and be sufficiently interested to co-operate in offering constructive advice.

I am informed that one of the outstanding welfare programs in the administration of relief is that of the Chicago Relief Administration. This program has been in operation since March, 1934. During its peak it carried almost 900,000 people. Prior to the organization of the relief administration about fifty-five county physicians were administering medical care to this group. Since the relief program was set up, about 2,600 physicians have been co-operating in the care of relief clients. Each client has the free choice of a physician; a rotating panel is maintained for those who do not have a physician of choice. Every effort is made to protect the physician-patient relationship. The fees paid are $1.50 for home day visits; $2.50 for night visits, and $30.00 for obstetrical cases including prenatal and postnatal care. During the time the program has been in operation more than $3,000,000 has been paid to participating physicians.

Responsibility for determining the medical policies and procedures of this program rests upon the Medical Advisory Committee appointed by the Chicago Medical Society, which co-operates with the Chicago Relief Administration. It is interesting to note that the personnel of this committee has remained unchanged, with the exception of two of its members, during the eight years since its appointment. The physicians who constitute this committee are all men with heavy responsibilities in practice; some are teachers in our leading medical schools. They have met with representatives of the Chicago Relief Administration every two weeks for eight years. The volume of the agenda at each meeting is so extensive that it requires from three to six hours to dispose of the material that accumulates from one meeting to another.

Very few violations of the rules and regulations by physicians have been encountered during this time. Many of these have been minor discrepancies due to misunderstanding of the policies, which are corrected by a personal interview with the physician. In less than one hundred cases has it been necessary to suspend the physician for frank abuse of the privileges. The *esprit de corps* between physicians, clients and Relief Administration has been excellent. As chairman of this committee during this entire period, I would like to say that it has been most gratifying to the committee and to members of the Relief Administration to read some of the letters received from physicians who have resigned from the program as they entered military service. This is evidence of the fact that the program is constructive and that it has a direct influence upon other organizations in the community in the care of the indigent. The program as administered in Chicago is being duplicated in many other states.

The State Department of Public Welfare in Illinois is co-operating with the Medical Advisory Committee of the Illinois State Medical Society in helping to draft a program for the medical care of Social Security clients. During the past year we have been busily engaged in working out the fundamental policies of a welfare program. The manual is now complete. The State Medical Society has appointed a medical advisory committee in each county, to co-operate with the county departments of the State Department of Public Assistance. The administrative features of the program and the medical policies pertaining to administration have progressed harmoniously, although the program has not as yet been officially released to the county medical societies. It is obvious that the function of the Medical Advisory

Committee of the County Medical Society is important in such a program. It is my sincere hope that in this procedure a working agreement will be found that will eliminate many of the obstacles that were encountered prior to its inauguration.

In these welfare programs organized medicine is made responsible for assisting in determination of the need for, and the administration and supervision of medical care. The government has here permitted the medical profession to be a self-governing body. The future of the programs depends upon the integrity of the members of the medical profession. We are charged with the responsibility of seeing that visits are limited to the number that would ordinarily be cheerfully paid for were the recipient paying the bill. We are obligated to discharge the malingerer and advise the Department of Public Welfare accordingly. We should, likewise, curtail the unnecessary purchase of appliances. Any abuse of the privileges of the program jeopardizes the agreement with the federal authorities. By adherence to the policies adopted and our obligations as members of the medical profession, we can direct a growing civic problem; protect the health of government wards; eliminate the abuse of public funds; and protect the interests of the members of organized medicine.

Summary of Our Medical Problems:

1. The Social Security Act does not permit direct payment to physicians for medical service.
2. The present custom of including funds for medical care in the grant to the client results in the client not paying the physician.
3. No provisions are made in the state of Illinois for supplementary funds to pay the physician.
4. Previous state commitments for other tax-supported projects are so great that it is doubtful if supplemental funds will ever be provided.
5. Large medical bills, hospital expense and bills for final illness must be approved for payment by the administrator of the governmental unit in which the recipient is included, which means one of 1,455.
6. In Illinois almost half of the Old Age Assistance group resides in Cook County. Under the present regulations clients are not permitted to go to non-governmental hospitals; they must use Cook County Hospital. For home medical care, service is given by one of the fifty-five county-contract physicians.
7. In Chicago funds for Aid to Dependent Children are not adequate to carry the case load; the Chicago Relief Administration has been asked to supplement medical and hospital care. If this is done clients will be given hospital service in non-governmental hospitals used by the Chicago Relief Administration, with free medical service contributed by the hospital staff.
8. In this state there are 1,455 governmental units, each dispensing some type of relief and care for Social Security clients.
9. Chicago has a well-organized medical program carefully supervised by an advisory committee of the Chicago Medical Society. However, ambulatory patients are referred to dispensary clinics; hospital patients are referred to Cook County Hospital or to a non-governmental hospital. Physicians are not compensated for medical or surgical service rendered while the patient is in the hospital.
10. It is essential that amendments to the Social Security Act be enacted to permit payment direct to physicians for their services.
11. Provision should be made to enable clients to avail themselves of non-governmental hospitals, as well as the services of their private physician.

It is sincerely hoped that our proposed program will amend many of the existing provisions of the Social Security Act, and that eventually a single program may be set up to include care of all public assistance recipients, with modifications as necessary according to classification. This program has been placed before members of the profession throughout the state. It has been well received, and much interest has been displayed.

CONCLUSION

In conclusion, I wish to state that in my opinion the medical societies and their members have many responsibilities in these programs, among which I may enumerate the following:

1. Advising on and assisting in the drafting of such programs.
2. Protecting the welfare of recipients of care.
3. Protecting public funds.
4. Protecting the interests of members of the medical profession as well as of the medical societies.
5. Guarding against malingering.
6. Rendering good medical care.
7. Defining, directing and recommending enforcement of medical policies.
8. Penalization of members of the profession who abuse the policies of the program.
9. Preventing the inclusion in medical programs of any measures contrary to the best interests of the recipients of medical care.

In the event that the Social Security Act is not changed, we should solicit the aid of legislators, departments of public welfare, and physicians to broaden the scope of the Act to permit direct payment to physicians for medical care, as well as the use of non-governmental hospitals.

It is my conviction that the proper interpretation and co-ordination of the state and county medical advisory committees in analyzing and helping to solve many of these problems will avert greater socialization of medicine.

DISCUSSION

VIRGIL SHEPPARD (Indianapolis). I am speaking to you today as Director of the Division of Public Assistance of the Indiana Department of Public Welfare, which department, under the 1941 law,

is responsible for the installation and supervision of a medical aid program for the care and treatment of those persons who qualify under the National Social Security Act to receive public assistance. In working out the procedures, I recognize that there has been some apprehension in the medical profession as to the implications that may be involved in this law.

In granting public assistance to the large group of needy aged, needy blind, and dependent children there has always been questions as to why a county welfare department will provide for food, clothing, shelter, and fuel, but when medical care is needed these recipients are required to call upon the township trustee. Evidently there was a feeling amongst the members of the 1941 State Legislature when this medical aid provision was written into the Public Welfare Act that medical services should be included as part of their need and that the county should be reimbursed for this service to public welfare cases from state or federal funds, the same as for other necessities of life.

Medical care for the needy as well as to those able to pay has always been the responsibility of the medical profession. There are in this state today hundreds of doctors who without thought of ever receiving a penny for their services minister at their office, in the home, in clinics, and in hospitals, to the penniless, the pauper, the needy, and the low-income family. By and large, the quality of the service to this group is just as high, and in some cases higher, than to those able to pay.

There is no law on the statute books of this state which prevents any physician from continuing to give such free services to any person upon the public relief rolls. As long as the medical profession is composed of the same high type professional individuals as has characterized its history in this state, there will be a continuation of charity work.

For scores of years, however, there have been upon the statute books of this state, as well as upon the statute books of other states, provision for some unit of government to pay physicians for services rendered to those adjudged needy, those without sufficient resources to meet their medical expense. In Indiana, for decades, the trustee, as overseer of the poor, in the more than one thousand townships was the local public official who has had the legal power and responsibility for furnishing, through the services of a physician, a dentist, a hospital, medical care for the needy. No legislation enacted at the 1941 session of the General Assembly in any way detracted from this legal power and responsibility of the township trustee. In an emergency he can provide medical services for any needy person, regardless of any type of public care which that person may be receiving, such as from a county department of public welfare. The township trustee can still continue to enter into an agreement with physicians, dentists, hospitals and others as in years gone by, to provide medical care for the needy aged, the needy blind, and the dependent children who receive monthly checks from the county or state welfare department. And to repeat, the physician can still furnish his services to this group of needy people free of charge to the township trustee or to any other agency.

What, then, is this new legislation on medical care for the needy aged, needy blind, and dependent children? Stated concisely, it enables the county welfare department to assume concurrent jurisdiction with the township trustee in meeting the medical expenditures of the needy aged, the needy blind, and the dependent children. Today about 120,000 persons are in these three categories in this state. A needy aged person, for example, who is upon the rolls of the county department of public welfare may legally receive publicly paid medical aid either from the township trustee or from the county welfare department. There are those places in the state, such as here in Indianapolis, where medical aid to the needy is furnished through a city hospital or some publicly supported clinic not administered by the township trustee. But for the great majority of the state, the township trustee or the welfare department constitute the only public agencies furnishing medical relief to the indigent, except that furnished to a limited number by the Indiana University Medical Center.

From 1936 to January 1, 1942, the only method the county welfare department could use in providing medical care for a needy aged person, for example, was to increase his monthly check, if necessary up to the maximum of thirty dollars, so that he could pay his own medical bills. The trustee worked under no such limitation, as he could spend any needed amount for the medical care of a needy aged person or any other indigent person. The 1941 General Assembly widened the scope of the state and county welfare departments' power in meeting the medical problems of the needy aged, the needy blind, and dependent children, by providing that the monthly check to the recipient could be increased to any amount, if necessary, so that he could pay his medical bills, or that the county welfare department could pay the physician, dentist, or hospital directly, just as the township trustee has been doing and can continue to do. The effect of the new legislation is to give the county welfare department as much statutory power as the trustee has already had in supplying medical aid to these three groups of people. The chief difference between the medical relief supplied to these three groups by the township trustee and by the county welfare department is that in the first instance the *township property taxpayers* will pay one hundred percent of the cost, whereas if the welfare department provides the care, the cost to *county property taxpayers* will be no more than forty percent of the total cost. The remainder will come out of taxes paid either to the Federal or State Government or from borrowings of the Federal Government.

The criticism is heard that if the county welfare department supplies medical care rather than the township trustee to these three groups of people, socialized medicine is being promoted. There is one definition of socialized medicine, I understand, which states that any payment by any governmental agency for medical aid to any person, needy or otherwise, constitutes socialization. According to this definition, those doctors in Indiana who for years have been paid by the township trustee for services to the indigent are practicing socialized medicine. However, if the definition of socialized medicine is restricted to the actual employment on a salary basis of physicians, dentists, hospitals, *by* the government to provide medical services to the needy, then the welfare medical aid legislation is *not* a step toward socialized medicine. A county welfare department can *not* employ a physician on a salary basis to provide medical care to its recipient group. However, township trustees have in the past employed, and can at present employ physicians on a salary basis. The point that I am trying to make is that there is no more socialized medicine in the new welfare legislation than has already existed in respect to the township trustee's medical aid program, but as a matter of fact, according to one aspect of socialized medicine, there is not as much opportunity for socialization under the welfare department.

Then, there is a criticism that it is a step toward socialized medicine or toward the greater socialization of medicine if State and Federal funds are involved in paying for medical services to the indigent. If that be true, then there is socialized medicine in each of the forty-eight states of the Union, because in every state federal funds are involved in financing the care of the needy aged, and in every state a part of the care is for medical attention.

What about the cost of medical care administered through the county welfare department? Will it be more costly than through the township trustee? The answer to this lies in the amount of care the medical profession, through the county medical aid advisory committee, recommends to the county board of public welfare and the size of the fees placed into effect. Any county welfare department, if its board so chooses, can be just as restrictive as the most conservative township trustee in the administering of the medical aid program. On the other hand, it can be just as liberal as the most liberal trustee. The difference between the two systems is primarily one of geography. The trustee operates over a small area in the county, whereas the county welfare department operates throughout all townships within the county.

Both the township trustee and the county welfare department are limited in the relief expenditures by any appropriation of a legislative body: the township trustee by the township advisory board and the county welfare department by the county council, and then the appropriations requested for both are also subject to review by the county tax adjustment board and the state board of tax commissioners. No welfare department can "run wild" in its medical care program with the financial limitation imposed through the tax reviewing bodies. I have worked with county boards of public welfare for over five years and it has been my experience that by and large they are composed of conservative, hard-headed businessmen and housewives who have a healthy respect for the taxpayer's dollar, regardless of whether it is a county dollar, a state dollar, or a federal dollar.

The amount of paper work involved for the physician under the county welfare department procedures has been cited as objectionable. Here, again, comparison with the procedures of the township trustee show that for the welfare department the paper work is much less as a result of a substitution of a monthly reporting form for a daily report required by the township. The paper work has been placed at the irreducible minimum which is necessary to give validity to the expenditure of public funds.

There are those who say that now is no time for the inauguration of a new medical aid program by the county departments of public welfare. Regardless of the efficacy of this point of view, the fact remains that township trustees, by and large, do not have enough money in their 1942 appropriations to finance medical care for the public welfare recipients, as they anticipated that the welfare departments would assume these obligations after January 1, 1942. For a township trustee to ask for a supplemental appropriation to continue a function which would be more costly to the local property taxpayers than if the welfare department assumed it, would raise some very serious questions. Any decision on the part of the county medical society *not* to cooperate with the county welfare department in the drafting of a medical aid plan for the needy aged, the needy blind, and the dependent children would force upon the township trustee the financial obligation to pay for the medical care of these persons. The alternative is for the physician not to charge either the county welfare department or the township trustee for medical services to the needy aged, the needy blind, the dependent children. If the physicians in any county desire to do this, not only would it be welcomed by the township trustee and the officials of the county and state welfare departments, but also by local property taxpayers, as well as those who pay taxes to the state and federal governments.

In all of this, it seems to me that even during this emergency when there may be a severe curtailment placed upon medical services, the medical care of the needy should not be forgotten. About thirty percent of all the aged persons in the state over sixty-five years of age are in need as defined by state law. Their lives should not be made too unhappy by the failure of society to provide reason-

able medical attention. The happiness of thirty-three thousand children and their future usefulness as adult citizens—if necessary, as soldiers, sailors, and as marines—should not be jeopardized during this period by short-sighted medical care programs.

Cooperation between the county welfare department and the county medical society in many counties has been most excellent. A number of county medical aid plans are now in effect and apparently working satisfactorily. There is no logical reason in any county, either through the county welfare department or the township trustee, for not providing in conjunction with the doctors, the dentists, and the hospitals, for a reasonable medical aid program for the needy. County welfare departments are deeply appreciative of the attitude and cooperation of physicians. They need your help in the establishment and the administration of any medical care program. As far as the State Department of Public Welfare is concerned, we pledge our services to assist the physisians in working out in any county a program which will be acceptable to the physicians as well as to the county department, and which will provide reasonable medical services to the needy aged, the needy blind, and the dependent children and not be too great a burden to the public.

J. S. Leffel, M.D. (Connersville). One year ago the Indiana State Legislature amended the Welfare Act. These amendments provide that the county welfare department may (and not shall) provide adequate medical, hospital, and dental care for the recipients of old age and dependent children assistance. This law became effective January 1, 1942. The bill was enacted into law about eleven months prior to that date. This law was passed before we had emerged from the recent depression. It was passed immediately following a year of comparatively low national income. It was passed immediately following a year when large sums of money had been spent on WPA, PWA, CCC, and a score of other governmental projects which were organized to care for the relief of that one-third of our people who were ill-clothed, ill-housed, and ill-fed. It is to be noted and emphasized that the legislature used the word *may* and not *shall*. They did not make these amendments mandatory. It seems quite clear that the legislators themselves, during a time when large sums of money were being spent for relief, by using the word *may* and not *shall*,, surely considered these amendments an experiment.

It is the opinion of many and it appears reasonable to all, that if the legislature were meeting this January instead of last January, no such amendments would have been enacted into law. I make this statement for reasons very obvious to you. You do remember Pearl Harbor and all the events that followed. You remember the declaration of war by your country and my country against the strongest and most brutal combination of naval and military forces ever assembled in the history of the world. You remember, further, that President Roosevelt in his speech of December ninth, two days after Pearl Harbor, said "We are in this war. We are all in it—all the way. Every single man, woman, and child is a partner in the most tremendous undertaking of our American history. . . . Every citizen in every walk of life shares this same responsibility. The life of our soldiers and sailors, the whole future of this nation, depend upon the manner in which each and everyone of us fulfills his obligation to our country." When President Roosevelt says "every citizen in every walk of life" he includes physicians, welfare workers and welfare recipients.

You also remember that on December thirtieth, when speaking to the Canadian people, Winston Churchill said "We cannot, sir, for a moment, afford to relax. On the contrary, we must drive ourselves forward with unrelenting zeal. In this strange, terrible war there is a place for everyone —man and woman, old and young, hale and halt—service in a thousand forms is open.

"There is no room now for the dilettante, nor for the sluggard. The mine, the factory, the dockyard, the salt sea waves, the fields to till, the home, the hospital, the chair of the scientist, the pulpit of the preacher—from the highest to the humblest task, all are of equal honor, all have their part to play." When Mr. Churchill said "all" he must have meant physicians, welfare workers, and welfare recipients.

For these and other reasons, the councilors of the Indiana State Medical Association in their annual meeting two weeks ago voted unanimously favoring a suggestion to postpone the experiment of medical care of public recipients through the Welfare Department for the duration of this war emergency, and suggested that each council member take this back to his local component societies for discussion so that it may be brought up for final action here today. I therefore urge that you give your most serious and thoughtful consideration to the administration of this welfare program.

We, in Indiana, are fortunate because of our geographical location. We feel relatively safe from bombs. And, because of that geographical safety, the Federal Government has seen fit to locate a large number of war industries within our borders. In addition to war industries, Indiana ranks high as an agricultural state. Agriculture has emerged from the depression. It, therefore, seems certain that for the duration of this war emergency, economic relief problems in Indiana will be at a minimum, perhaps second to no other state in the nation. On the other hand we, in Indiana, have problems common to the nation as a whole—the problem of service, the problem of rationing, and the problem of taxes.

With regard to medical service, we are told on the editorial page of *The Journal of the American Medical Association*, January seventeenth issue, "Should the war be prolonged from two to

three years, the majority of physicians under forty-five years of age, who are physically fit, will be engaged in the military services. Those who are not physically fit to meet the standards of the Army and Navy will unquestionably be called on for additional services beyond the practices in which they are now engaged."

Concerning the matter of rationing, all citizens will give up luxuries, from automobiles to the bobby pins in your wife's hair. They will give up their fathers, their sons, their brothers, their husbands, and their lives!

In addition to all of these sacrifices, every American taxpayer is going to be asked to pay the highest tax rate in all American history. For the first time in all American history, those in the lower income brackets are to be subjected to federal income taxes. We can no longer assume that just because money is received from State and Federal treasuries, it does not affect local taxpayers. It, therefore, seems reasonable that tax funds should be rationed as well as other things, even life itself.

I should like to quote Henry M. Wriston, president of Brown University. "At a time when we are rationing vital needs—spending must be rationed, too. We want to see every unessential, unnecessary governmental expense cut to the very bone. 'Government as usual' has no more place in this critical picture than the rejected philosophy of 'business as usual.'

"Just as we must conserve and ration every pound, even every ounce of materials essential to military needs, so must every tax dollar be rationed to finance a long, hard war. This means not only sacrifice for the individual, but unmistakably a temporary curtailment of Government agencies not vital in war time. . . .

"Uncle Sam can't afford any 'fifth wheels' this year. *We Are At War!*

"Let's strip for action. Let's cut out every expense that is not vital. Let's spend to win—and save to spend. Let's make the dollar fight too! And let's keep uppermost in mind that every tax dollar we convert from non-essential expenditure right now is a dollar toward victory—and a quicker victory."

There are those who are looking forward to this welfare program as a place to "make hay while the sun shines," as a place where they can recover some of the taxes they have paid and will pay in the future, but such an attitude of group selfishness during a time of national peril is not justifiable upon any ground whatsoever. They were the ones referred to by Abe Martin during the first World War when he said "Up t' this writin' there's no evidence that the commercial instinct and patriotism are goin' t' git t'gether."

On the other hand, there are many physicians who feel that for the duration of this war emergency, new experiments in the field of medical service should not be tried. The physician on the home front who is either too old or physically disqualified for military service will have little time for extra calls and extra paper work, both of which are certain to accompany this program. They feel that the present economic conditions in Indiana, due to war industries, do not justify making a profit—treating the poor at the expense of already overburdened taxpayers. Like American physicians have always done in time of war, they prefer to develop that quality of courage and sacrifice that cries out for more to do rather than more to get, and to develop that quality of work which loses sight of clock and pay-envelope. In the words of Woodrow Wilson during the First World War they believe "The Public Welfare is to be served by the spontaneous common purpose of a free people."

ABSTRACT

TYPHUS, CHOLERA AND PLAGUE IMMUNIZATION ORDERED BY ARMY

Immunization against typhus, cholera, human bubonic or pulmonic plague of all military personnel of the United States Army who may be assigned to areas where they will be exposed to these diseases has been ordered by the Surgeon General of the Army in Circular Letter No. 3, which is published in the Medical Preparedness Section of *The Journal of the American Medical Association* for January 31.

The order states:

"That all military personnel stationed in or traveling through Asia, Africa, continental Europe or other areas where danger from epidemic typhus fever exists will be immunized with typhus vaccine as prescribed by the Surgeon General.

"That all military personnel stationed in or traveling through Asia or other regions where cholera is known to be present in endemic or epidemic form will be immunized with cholera vaccine as prescribed by the Surgeon General.

"That all military personnel under serious threat of exposure to epidemics of human bubonic or pulmonic plague will be immunized with plague vaccine as prescribed by the Surgeon General."

Regarding subsequent vaccinations the order explains that typhus vaccine may be administered every four to six months as long as serious danger of infection is present. The same applies to cholera vaccinations. As for subsequent vaccinations against plague, it is stated that additional doses "of plague vaccine may be administered whenever in the opinion of the surgeon additional stimulation of immunity is indicated."

Elaborating on the efficacy of vaccination, the order says that "it is imperative to realize that vaccination alone is not adequate for the prevention of typhus, cholera or plague. The immunity conferred by these vaccinations is incomplete and probably of relatively short duration. The practice of vaccination should, therefore, be considered an adjunct to the control measures prescribed in . . . [Army regulations], and such other special control measures as may be recommended by the surgeon of the force concerned."

RATIONAL USE OF PHYSICAL MEDICINE*

C. F. VOYLES, M.D.
INDIANAPOLIS

My introduction to physical medicine took place thirty-six years ago. I took a course in the old Chicago School of Electrotherapeutics, headed by Doctor Charles S. Neiswanger, who used galvanism extensively and wrote a book on Electro-Therapeutics. The faculty of this school was composed of honest men who at that time were especially stressing galvanism, high frequency, the various applications of heat, and were teaching the principles of x-ray. Their belief in the efficacy of physical agencies was even less fallacious than that of many preceding internists who salivated their patients, and surgeons who proposed double castration for the benign obstructing prostate.

It has been said, "Every truth passes through three stages—in the first they say it is not true; in the second, it conflicts with the Scriptures; and in the third—they have always believed it." Physical medicine has passed through two stages and has entered upon the third, in which many of our profession pretend they have always believed in it. In the first stage many derided it and accused it of being the tool of quackery; in the second stage it conflicted with professional orthodoxy.

Upon visiting the elaborate physical therapy department of a great clinic recently, I found that many patients have been given leaflets, cuts, etc., designed to teach them how to improvise equipment and carry out physical treatment at home. I heartily approve of this. Because of prolonged use of inexpensive equipment and more frequent treatments, the patient may get a good result. This plan should be considered, especially by those who do not care to operate equipment.

The work done by scientific men in this field today is on a sound basis, and it will no doubt endure until superseded by something better.

EQUIPMENT

The physical equipment now used in my office is largely as follows: short and ultra-short wave machine; high frequency machine for conventional (old type) diathermy and other uses described later; water-cooled ultra-violet; air-cooled ultra-violet; a sinusoidal apparatus containing a unit for galvanism, and an infra-red lamp for convenient and quick heating. These simple units fulfill the needs in my office. The equipment for a hospital or a sanitarium would necessarily be more elaborate.

SELECTION OF CASES

I wish to emphasize the all-important need of sufficient examination and careful selection of cases for physical therapy. We should remember the admonition of Doctor Robert Hutchinson, of London, who said, "When a physician gets to guessing he is diagnostically damned." Following are two illustrative cases:

(1) A woman in early middle life was sent to me by a colleague who requested diathermy for sciatic pain in her left leg. I gave her seven treatments, without examination. She had returned for the eighth treatment when the patient and I agreed that she had made no improvement. I sent her back to her physician with a request that a searching examination be made for focal infection. X-ray films showed a recurrence of an old pyogenic infection in the bony structure of her pelvis. After a surgeon eradicated this infected tissue, the sciatic pain subsided immediately.

(2) A very large, muscular man in the prime of life had a half dozen infected teeth extracted in California and immediately started a trip to Indianapolis. The drive was fatiguing and he was chilled in crossing the mountainous area. By the time he reached St. Louis he had a chill, and when he reached Indianapolis he was suffering excruciating pain in the lumbosacral area and down the course of the right sciatic nerve. He was sent to the hospital where salicylates and physical therapy were tried, with no benefit. There was no important clinical evidence that he had a pyogenic infection in his hip joint. However, x-ray films showed early and extensive decalcification. The patient was immediately referred to an orthopedic surgeon. Within a short time another x-ray examination revealed that the head of the femur was detached and largely destroyed. The case was treated expectantly by the surgeon. After many weeks the patient was able to walk on two crutches, and later he was using one crutch and a cane. I met him a few years later and was pleased to find that although he was using a cane and walking with a definite limp, he was in rather good health.

These two cases show the pitfalls of physical therapy, or any therapy, if persisted in without a diagnosis and in the absence of immediate improvement.

DIATHERMY

The short and ultra-short wave is used for diathermy in conditions too numerous to enumerate here. If the cases are properly selected, improvement may reasonably be expected. There is evidently no great difference between the effects of the short and ultra-short wave nor between the effects of short wave diathermy and conventicnal (old type) diathermy. However, the short wave ma-

* Read by invitation before the senior class at the Indiana University School of Medicine, October 28, 1941.

chine is so much more convenient and time-saving that it has largely superseded conventional diathermy. The short wave has the additional advantage of being less likely to cause a burn. There is always some danger of a burn in using conventional diathermy, unless the technician is ever alert. A representative of a large indemnity insurance company has stated that more damage suits are filed because of affirmed diathermy burns than because of alleged damages from x-ray. We have had only two diathermy burns in our office. These were from conventional diathermy, as follows:

(1) A male patient undertook to shift a block tin electrode which had slipped slightly on his abdomen. The cord came off the electrode and a sheet of sparks flew off the snap and blistered a stripe across his hip. There was some superficial ulceration but the wound healed in about two weeks.

(2) A girl technician failed to plug a cord securely into the connector of a block tin electrode. The cord slipped loose and the patient sustained an ugly burn in the muscles of her posterior chest from the contact of the cord plug tip. The injury healed readily and no great harm was done. However, the patient refused to pay a past-due account of eighty-five dollars. After this experience I discarded all of my cords and had new ones made, bifurcated, in order to have two connections instead of one.

CONTRAINDICATIONS

A few contraindications to diathermy are as follows: The presence of pus without established drainage. Some early stage acute arthritic and inflammatory conditions may be made temporarily worse by too early active diathermy treatment. Recently formed scar tissue requires caution for it may not tolerate such heating, especially when covered by the metallic electrode in conventional diathermy. We should never fail to take precautions, especially in winter, to prevent the patient from catching cold by going out too soon after treatment. One of my patients, a frail woman of sixty-five, had a treatment during the winter and possibly left too early, going twenty-five miles to her home. She caught cold, developed pneumonia, and died some months later.

INDICATIONS FOR DIATHERMY

The following are only a few of the conditions in which diathermy may be used advantageously: Irritable colon; the various rheumatic and arthritic conditions; lumbago; sciatica; casualty cases, and acute colds involving nasal sinuses.

In the treatment of acute head colds the smaller-sized discs may be placed well forward and laterally, using the ultra-short wave. We should not make the mistake of placing the discs anteroposteriorly. Such application would heat the base of the brain, probably cause dizziness, and the patient might have a headache for a few days. Heat by means of the infra-red lamp directed towards the open mouth and nose also gives beneficial results in these cases.

The indications for conventional diathermy are essentially the same as those for short and ultra-short wave. I have seen the spectacular result of lumbago disappearing after one or two diathermy treatments, especially when applied by means of the induction method, the coiled cable being placed over the lumbar area with the patient in the prone position. In cases of pain following a fractured rib, short wave diathermy is now being given without removing the adhesive tape. Formerly it was believed that the skin would not tolerate treatment through such dressings. A surgeon once raised the question whether a hot water bottle could not be substituted for diathermy. The answer is that a hot water bottle would burn the skin long before the conductive heat was transferred deep enough to approach the effect of diathermy. With diathermy we get all of the deep conversive heating desired without overheating the skin.

I am impressed that nothing worthwhile has been accomplished by diathermy in the treatment of chronic nasal sinus conditions. Little has been accomplished in the treatment of chronic cholecystitis without stones. It has been tried in such cases. Apparently all that has been accomplished has been lessening of pain in a percentage of cases. As you already know, diathermy should never be used in a case that is clearly surgical. However, we have a class of less severe cases in which only an aggressive surgeon would operate. A few years ago the Boston Clinic, headed by Dr. Lahey, traced a rather large series of chronic cholecystitis cases without stones. These were all treated expectantly. The result indicated that forty per cent reported apparent clinical cures, while some of the other sixty per cent were getting along too well to consider surgical treatment. Personally, I believe we can all show that good a record in the milder cases without stones if we institute prolonged treatment.

I have retained conventional diathermy for three special reasons: for heating anal contractures preceding massage; for heating the prostate in selected cases preceding massage, and for autocondensation treatment indicated in several conditions. In treating anal contractures a metal electrode is placed within the anus and lower rectum and a sandbag is propped against a guard. A block tin electrode is placed on the lower abdomen and held in place by a sandbag. The two electrodes are connected with the terminals of the high frequency machine. From 600 to 1,000 Ma. of the d'Arsonval current, depending on the patient's tolerance, is employed for twenty to thirty minutes. After such treatment the patient will tolerate more vigorous manual stretching.

PROSTATE

Diathermy treatment of selected prostate cases is similar to the above. A metallic Eberhart elec-

trode is placed within the rectum behind the prostate and a sandbag is propped against a guard. This prevents the electrode from slipping. A block tin electrode, 5 x 6 inches, is placed on the lower abdomen and held in place by a sandbag. The cords are connected to the outlet terminals of the machine. About 1,000 Ma. of the d'Arsonval current is employed from twenty to forty minutes, after which the prostate is massaged.

I assume that no one would expect results from diathermy for an obstructing adenoma of the prostate. The only advice for such patients is to consult a urologist. However, if the physician is a careful diagnostician he will encounter many cases of nonspecific, infectious prostatitis in which surgical treatment is not indicated. In some such cases there is little evidence pointing to the prostate, except that a specimen obtained from massage shows entirely too many leukocytes, and there is usually an associated abnormal tenderness. Some patients complain of beginning irritability of the bladder and of nocturia, perhaps once. What the urologist has to offer in these cases is mainly massage and, if indicated, some bladder neck stretching and instillations into the prostatic urethra.

In addition, and complementary to the foregoing, physical medicine offers diathermy. If it is employed the result is likely to be better than the urologist can get without diathermy. Outside of physical therapy literature little has been written on diathermy of the prostate. Evidently diathermy, with few exceptions, has not been widely employed by urologists. I believe that the impracticability will prevent its widespread use by these specialists. The office space required, equipment, technicians, and expense to patients tend to prohibit its use in the practice of a busy urologist. The statement has been made, perhaps without authority, that sixty-five per cent of men, after they reach middle life, have more or less chronic prostatitis. In the past twenty years I have made a general examination of very few men without checking the prostate by both physical and microscopic examination. It is not unusual to find a prostate specimen containing a large number of pus cells in the absence of major symptoms of prostate disease. There is general agreement that such prostates are a source of focal infection. The consensus of opinion of urologists is that heat is one of the forms of treatment indicated. Personally, I believe that diathermy is the most beneficial form of heat in these cases. I have used it in a few obstructive cases in which the patient was not ready to undergo a resection. After three or four treatments the stream was usually a little larger and the bladder force a little better.

AUTOCONDENSATION

Autocondensation is given with the high frequency machine, the patient lying on the autocondensation pad. The pad is connected to one terminal of the machine and the patient is connected directly with the other. The patient's body takes the place of one metal layer in a condenser and receives the condenser charge. The polarity is rapidly oscillating so the charge in the patient's body is constantly changing from positive to negative, and this establishes what physical therapists have called "cellular massage," with generation of some heat and the consequent effect on nutrition and metabolism. In hypertension it temporarily lowers blood pressure. This form of treatment is not now in general use as the benefits are rather meager and the treatment may be regarded as a luxury. If given in the evening it tends to promote sleep. In the early stages of sclerosis with hypertension, a long course of autocondensation, using d'Arsonval, may or may not give some permanent benefits. It is contraindicated in hyperthyroidism, as it raises the metabolic rate and the patient is made more nervous.

WATER-COOLED RAY

The water-cooled ultraviolet ray in private practice has a limited field, but is exceedingly valuable, especially in the infective, inflammatory lesions, such as carbuncles, furuncles and other infections. The method is convenient. The treatment consumes little time and is very potent. This ray is a shorter wave length, and it is more penetrating than air-cooled ultraviolet. Many of the above-mentioned lesions may be aborted readily if given one to three heavy doses of water-cooled ultraviolet ray early. I have readily cured some carbuncles of three or four days' standing by this method, without any other treatment. In some cases no operative procedure for drainage is needed. It is a treatment of value in some skin lesions, such as the dry type of eczema, etc. It has been effective in the cure of some of the fungus infections, such as athlete's foot. However, heavy dosage is rather heroic treatment for such conditions and is nearly superfluous since we have Whitfield's ointment, which, if skillfully used, is usually sufficient.

In treating acute inflammatory conditions that have not localized, it is desirable to apply the treatment in zones, giving a much stronger treatment in the central zone, where we want localization, and giving less in each succeeding outer zone. For example, in treating an area of some size, such as a carbuncle, one may cut a hole as large as a dime in a cardboard or cloth and center the hole where he desires localization. This area is treated. The hole is then cut larger, and both the central and the next zone receive treatment. The hole is again cut larger and the same thing is done until one has treated four zones, the central one receiving four times as much treatment as the outer zone. With my machine it requires about three minutes to each zone, or a total of twelve minutes, to produce satisfactory vesiculation. These vesicles disappear promptly, and this

much action is necessary to abort such lesions as furuncles and carbuncles. These are not heat blisters. They are physical effects of a destructive and bactericidal short ray. I do not use my x-ray in the treatment of carbuncles, as I get sufficient physical energy and early resolution from water-cooled actinic ray.

HERPES ZOSTER

An older and less convenient physical therapy treatment of herpes zoster was as follows: the area of eruption, the course of the nerve and nerve root area, were dusted with talcum. A glass vacuum or nonvacuum electrode was connected to a high frequency machine and the Tesla current was used unipolar, moving the electrode as slowly as the patient would tolerate the heat. I have seen excellent results from this treatment, some patients being cured in four to six treatments. I now use the convenient water-cooled actinic ray producing a second degree erythema. Cases treated with physical therapy are less likely to have recurring neuralgic pains during the following months or years. We should not use the actinic ray about the eyes, as zoster in this area affords grief enough without adding conjunctivitis from this ray.

Even physicians have benefited by spectacular results in the field of physical medicine, as illustrated in the following case:

A physician sustained a contused wound, with a large hematoma on his shin. The hematoma was absorbed in the usual time but a rather dense mass remained for several months and was showing no tendency toward recovery. One treatment of water-cooled actinic ray, causing vesiculation, was followed by about ninety per cent improvement within a few days. After a few weeks a slight thickening remained, which, however, subsided after another treatment, and the area remained normal.

AIR-COOLED RAY

The air-cooled ultraviolet, as you all know, produces longer wave lengths which penetrate but little. It is used extensively for tonic effects, and especially for its value in increasing vitamin D. When this ray combines with ergosterol in the skin, vitamin D results and calcium metabolism is promoted. Air-cooled ultraviolet is contraindicated in pulmonary tuberculosis in a state of toxemia with fever, also in hyperthyroidism and toxic states with an already too high metabolic rate. It favors the fixation of calcium and is indicated in calcium deficiency diseases. For tonic purposes this treatment is given at about thirty inches to cut out the shorter and more destructive rays. It may be used at a distance of ten inches, as a substitute for the water-cooled actinic ray, for the destructive and bactericidal effects of short rays.

GALVANISM

Galvanism is little used now. In the earlier years of physical therapy some good work was done with it. It is the agency in which polarity means so much. At the positive pole we have oxygen and an acid reaction. It tends to check bleeding, acts as a sedative, will harden tissue and is a vasoconstrictor. The opposite is constantly true of the negative pole. It attracts hydrogen, produces an alkaline field, increases bleeding, causes hypersensitiveness, and liquefies and disintegrates tissue. It is a vasodilator. Galvanism has been used a great deal in neuritis and also in some pelvic diseases. I saw a case of prolonged uterine bleeding stopped by one intrauterine treatment of positive galvanism, much to the embarrassment of a surgeon whose therapeutic efforts had failed in this case. Modern gynecology, with its more exact diagnoses, has made galvanism a back number in this field. The late Dr. Frederick H. Morse, of New York City, and others have done some splendid work in bursitis, sciatic neuritis, etc., with galvanism.

The unpardonable sin in the use of galvanism is to allow any metal part of an electrode to touch the skin. If the current is built up slowly, the entire thickness of the skin may be destroyed before it is realized, and a permanent scar will result. The following case illustrates the polarity effects of galvanism:

A woman fell down a flight of steps and injured the outer aspect of her foot. For several months she went without a diagnosis and received no treatment, and she continued to have a great deal of pain. X-ray films showed a fracture line in the fifth metatarsal but did not reveal the cause of the continuing pain. I gave her two positive galvanism treatments as a sedative, with no improvement. Negative galvanism was next given for its liquefying effect on a possible thickening with pressure. The improvement was more than twenty-five per cent following each of the few necessary treatments. Recovery was complete and permanent.

FARADISM

The faradic current was of some value in the practice of a former generation, especially in preserving the integrity of paralyzed muscles in hemiplegia. It produces an unpleasant sensation, and has gone the way of the horse and buggy. Although still widely utilized in muscle-nerve diagnostic tests, it has been largely supplanted by the sinusoidal current, as both are used for mechanical effects and the sinusoidal is better and more comfortable for the patient.

STATIC ELECTRICITY

The day of static electricity is also past. Much of the work done with the old static machine was moderately beneficial when used by skillful men, and one modality—the static wave, or Morton wave current—has not been improved upon for some indications. However, few physicians can now afford to give room to a static machine, put up with the noise it produces, or be bothered about drying the moisture out of it. The following case

illustrates its use: A young man walking in a railroad yard injured one of his great toes by striking it against an iron crossbar. I sent him to an orthopedic surgeon employed by the company. After weeks of observation and some treatment the patient returned to me. I sent him back to the surgeon for further treatment. He again came to me for relief of pain and joint soreness. A block tin electrode was moulded to his toe and a few static wave (Morton wave) treatments were sufficient for a permanent cure. Some will say such cures are psychic, but why should this vigorous, rough-and-tumble young Irishman imagine he was in distress?

INFRA-RED RAY

The infra-red ray is a most excellent and flexible mechanism for applying plain heat. I know of no claims or evidence indicating that it produces a specific photobiological effect.

A few well-chosen books will guide the physician in prescribing physical therapy, which he certainly should be sufficiently informed to do even if he does not care to give the therapy personally. I especially recommend the recent and comprehensive book "Physical Medicine," by Krusen, head of the Physical Therapy Department of the Mayo Clinic; also "Medical Applications of the Short Wave Current," by Bierman, of Mount Sinai Hospital, New York City; and "Galvanism and Sine Current Technique," by Frederick H. Morse.

Some of the cults would not have flourished if regular physicians had been more alert in recognizing and prescribing physical agencies. However, there are difficulties to overcome. A patient will accept physical therapy if his own physician is equipped to give it and will at least oversee the work done by his technician. However, if the patient is directed to a good laboratory he may take the advice of a friend or relative to go to a cultist who promises more. If the physician refers the case for physical therapy under proper control, I believe it is best to prescribe it very definitely, such as writing an order for four, six, ten or twelve treatments, as the case may seem to require as a tryout, and advise the patient to return for further advice. The patient may thus feel that he is not to become impaled on somebody's hook to remain there indefinitely.

Medical gastro-enterology is my special practice; however, these physical agencies have served me well.

715 Medical Arts Building.

ABSTRACT: NEED OF CHILD HEALTH EDUCATION AT ALL ECONOMIC LEVELS IS SHOWN

Analyses of the health records of 6,438 children representing widely different income levels and various types of community areas in Chicago, who were examined by pediatricians in 1939 and 1940, lead Martha Crumpton Hardy, Ph.D.; H. H. Boyle, M.D., and Alvah L. Newcomb, M.D., Chicago, to declare in their report in *The Journal of the American Medical Association* for December 20 that "Evidence of the need for health supervision and health education at all economic levels is strikingly shown by the results of this study.

"Poor nutrition is clearly manifest in a composite of flabby muscles, underweight, pale mucous membranes, round shoulders, fatigue posture, bow legs, knock knees, flat feet, carious teeth and inadequate diets. At no income level is the general health picture satisfactory, but at the low levels it is definitely unsatisfactory."

The group on whom observations were made was approximately equally divided as to sex: 3,253 boys and 3,185 girls. Their ages at the time of examination ranged from 2 to 18 years, 88 per cent being between 5 and 14 years of age. Some of the best and some of the poorest neighborhoods in Chicago, representing various national and racial groups, were included in the study.

The results of the study on physical fitness of these children are summarized by the authors as follows:

"1. Need for professional health services:

"(*a*) Children from nonrelief families were no less in need of professional care than those from relief families.

"(*b*) Variations between the different income levels with respect to incidence and type of medical care needed were small and not statistically significant.

"(*c*) The incidence of health services advised by the physicians was as follows:

"(1) Sixty per cent of the children were in need of medical care.

"(2) Fifty-eight per cent of them were in need of dental care (according to observations of pediatricians).

"(3) Thirty-four per cent had not been immunized against diphtheria (29 per cent of the children under 5 years of age).

"(4) Twenty-one per cent had not been vaccinated against smallpox (55 per cent of the children under 5 years of age).

"2. Association of low income with poor physical conditions which may not have required professional services:

"(*a*) Ratings indicative of poor general health were reported more frequently and of good health less often in the lower income classes.

"(*b*) The incidence of carious teeth was higher at the lower income levels.

"(*c*) Underweight was noted more frequently in the low income classes.

"(*d*) Observations of insufficient amount of fat padding, poor posture, round shoulders, flaring ribs and bow legs were more frequent to the low income levels.

"3. Health differences between white and Negro children:

"(*a*) A larger proportion of the Negro than of the white children were in need of medical care.

"(*b*) Ratings indicative of poor general health were reported more frequently and of good health less frequently in the case of Negro than of white children.

"(*c*) The incidence of underweight and of other signs of unsatisfactory physical condition was higher in the Negro than in the white group.

"4. Adequacy of diet:

"(*a*) Adequacy of diet was directly associated with economic status. Poor diets were more frequent at the lower levels and good diets at the higher income levels.

"(*b*) The intake of fruits and vegetables was inadequate at all income levels—39 per cent of the children were having less than the minimum requirements for the protection of health.

"(*c*) Inadequate diets were noted more often among the Negro than among the white children."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association
Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis....Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend....Dec. 31, 1944

MARCH, 1942

Editorials

IT'S UP TO YOU: ACT!

"I don't know what to do about it." Thus spoke a young medical man recently; as a matter of fact, a lot of young medical men are saying just that—too many of them are saying it. They, of course, are referring to enlistment in the Medical Corps of the United States armed forces.

There is no occasion to wonder what to do about it; the course is clear; there is but one direction that should be followed. The medical man under thirty-six years of age should not undertake to decide what he shall do in this emergency; we are at WAR, the most ruthless war of modern ages; it's a do or die war and must be carried on until every national danger is passed.

If you are in this age classification, make your preparations today to serve in the United States Army or Navy. The Procurement and Assignment Service will answer the question of what to do. This service will fill the requests from the Army and Navy for medical personnel, and will thus determine your future course. After all, it is within the province of the Selective Service to make this decision for you and it is our opinion that a decision from the Procurement and Assignment Service would be more to your liking.

THE SECRETARIES' CONFERENCE

Superlatives are necessary to adequately describe the seventeenth annual Secretaries' Conference held January 25, 1942, at the Indianapolis Athletic Club. With a banner registration of six hundred thirty-seven and many present who failed to record their names, one can get an index of the interest and spirit of this meeting which has grown to be an important date on our society calendar. From other states we hear the comment that Indiana knows how to put on a real conference, and at this date we are not too modest to accept this pat on the back.

Following the call to order by the chairman, Dr. R. L. Hane, the welcome to secretaries was appropriately expressed by Dr. C. H. McCaskey, president-elect of the Indiana State Medical Association.

The Indiana organization for Civilian Defense was graphically and thoroughly explained by Mr. Clarence Jackson, chairman and director of the Indiana Defense Council. Colonel William S. Keller, of the Fifth Regional Civilian Defense Office, commented on our set-up. It seems that the specific duties of physicians are as yet not too well clarified; but according to Dr. J. W. Ferree the near future will see all minor details worked out.

"Methods for Securing an Enabling Act for Prepaid Medical Care" was jointly presented by Dr. Jonathan Forman, editor of the *Ohio State Medical Journal*, and Mr. Charles S. Nelson, executive secretary of the Ohio State Medical Association; the former noted the background of the need for such legislation in Ohio, and the latter gave in detail the maneuvers necessary for final enactment of the desired law. With our experience in Indiana, aptly recalled by Albert Stump, it was helpful to see that others have had their difficulties but, in the end, have come out on top.

The vital question of "Procurement and Assignment of Physicians" was mostly ably presented by the executive secretary of the Procurement and Assignment Board, Major Samuel F. Seeley. He left no doubt in our minds that if this agency is left to function according to its plans, not only will the government be well served but the physicians as well. They are making every effort to place the round pegs in the round holes and the square ones to their appropriate counterparts. We are urged to fill out the new questionnaire and also to inventory our physical status so that we may compare it with the required standards of the various services. We were further warned to prepare for hasty induction when once our name is presented to the War Department. Local M-Day committees will certify as to the ethical standards of the candidate for commission.

"Social Security Medical Problems" was discussed by Dr. Charles H. Phifer, president of the Illinois State Medical Society. The situation in Indiana was elucidated by Mr. Virgil Sheppard,

director, Division of Public Assistance of the Indiana State Department of Public Welfare, and Dr. J. S. Leffel, chairman of the Medical Relief Committee of the Indiana State Medical Association. A pertinent recommendation of the Council of the Indiana State Medical Association that county medical societies agree to do this work without remuneration was cited by Dr. Leffel. The idea behind this is that now is the time for our government to concentrate on defense expenditures, and to leave all else for the duration.

The after-dinner speaker, General Lewis B. Hershey, responded to his introduction by Dr. M. A. Austin, president of the Indiana State Medical Association, by labeling himself as *of* and *not from* Indiana. He proceeded to prove this by a ready display of Hoosier vernacular and wit. General Hershey made a plea against any hysterical action, but likewise warned against the dangers of a complacent attitude. We get it that our opponents are of big league caliber and against such we need all be prepared to get in and pitch.

Dr. A. M. Mitchell, of Terre Haute, was elected chairman of the Secretaries' Conference Committee for 1943.

NO TIME TO RETIRE!

General Hershey, in his address before the Secretaries' Conference, remarked, "I do not think that I will be greeted by any wild burst of enthusiasm when I say that some men who have arranged to retire from doctoring will have to go back and rearrange their affairs. I also think that many who now are practising will have to practise without regard to some of the hours they have been able to choose heretofore," and there we have the pronouncement of the man who really knows!

Some 186,000 physicians of the country soon will receive an "enrollment blank," directly from a governmental bureau, in Washington. On this blank *all* will be expected to declare their wish to further the interests of the country, in whatever manner it may determine they are to serve. This, of course, will include men who have reached the retirement age, many of whom already have given up their professional duties. These men, along with the younger groups, are to be asked to do something—just what that may be is not known at this time.

It is certain, however, that retirement plays no part in this program. Furthermore, some of us who, because of increasing age and perhaps because of physical disabilities, have limited our service will find it necessary to add an hour or two to our daily stint. This will affect the program of several thousand physicians in this country, practically all of whom will take on additional duties. Thousands of the younger medical men of the nation will be called to Service; those who remain at home will have to "take over." All this can be accomplished —will be accomplished—for the additional duties are to be assumed by the older group, and by that we mean the medical men over sixty-five. This was done during World War I; it will be done in the present emergency.

American Medicine never has failed to "come through," when called upon; American Medicine will answer every call in this emergency. Don't retire until you *have* to retire; keep in the harness and add a bit more to your load!

A MEDICAL SOCIETY DOES THINGS!

We trust we may be pardoned for recording the doings of our local medical society. We believe it has set an example that may be emulated to a greater or lesser degree by many similar groups in Indiana. It was organized in 1898, with less than a score of members; today, it enrolls a membership of about two hundred fifty. Lake County has an estimated population of some three hundred thousand; North and Calumet townships, located on the shores of Lake Michigan, have several cities of importance—in order: Hammond, Whiting, East Chicago and Gary. East Chicago includes the city generally known as Indiana Harbor. These communities are the sites of large industries, including steel mills, oil refineries, railroads and the industries closely allied to the great arteries of transportation. Our population is quite cosmopolitan; several years ago a "nationality" survey was made which showed more than fifty national groups therein.

We have been connected rather intimately with this local society for a period of thirty-eight years, during that time having had the pleasure of serving in one or another official capacity, hence, our familiarity with the organization.

Several years ago we began a quiet campaign in favor of a full-time, lay secretary. It required a long time to bring the membership to our way of thinking, but about three years ago we were successful. Since the introduction of this then novel plan the society has gone places and has done things. The Annual Report for 1941 shows some of these accomplishments. The financial report, for example, is most interesting. We recall the days when there was no financial report; the state dues were $1.00 per annum and the annual membership assessment was the same, hence, there was no occasion for bookkeeping. We collected a yearly assessment of one dollar, sent it to Indianapolis—so ended that! Today, our annual dues are *forty dollars*, ten dollars of which goes to Indianapolis for Association dues. We note in the present report that the gross income of the society for 1941 is the (to us) staggering total of $26,109.94! The current expenditures amounted to $24,812.06, leaving a balance of $1,297.88. These amounts are exclusive of the monies paid to the State Association—cash that remained in the hands of the local treasurer.

Because of the geographical distribution of our membership, we have found it advisable to maintain three business offices: one in Hammond, one in Gary and one in East Chicago, each with a full comple-

ment of help. At the beginning of 1942 we have *eleven* full-time employes, our payroll for 1941 amounting to $15,771.75.

During 1941 the business offices earned $19,042.51, this being the fees charged for collection of doctors' accounts. Total collections through the business offices during 1941 amounted to $54,696.51, a rather sizeable sum to be restored to the pockets of our members! A word of explanation concerning these account collections is in order. The old system of personal solicitation on these accounts is out, our Mr. Stonebreaker stating that they "do not ring doorbells." The mails and the telephone are used generously; we might cite the item of $1,094.97 for telephone and telegraph service and $772.01 for postage—all in 1941. We had a traveling account of slightly less than one thousand dollars for the year, this by various members of the business organization. We, of course, pay a Federal Old Age Tax, as well as a Gross Income Tax.

We maintain a notary service at all three offices which is free to our members, and this year we have instituted a Federal Income Tax service, free to members, which means quite a saving to our folk. *The Lake County Medical News* is published every month, with an average content of thirty pages. The advertising revenue from this little magazine just about covers the cost of the issue.

The executive secretary, Rollen Waterson, with the assistance of various committees, has been able to effect a marked change in the handling of indigent medical care in the more populous sections of the county. In 1938, through a contract system, the total indigent *medical* expense in *one* township, not including hospitalization, was $135,000, this money going into the pockets of less than a dozen physicians. Under the new set-up, with a similar case load, the expense had dropped to $65,000, this amount being shared by about 125 doctors. This fact, plus the results of the collections through the business offices, will answer the question as to how the members feel about the marked increase in dues!

The above facts and figures are reported so that they may give some idea of what is possible through efficient organization. The membership of our society profits amazingly because of these accomplishments. In addition, our society is now being consulted first hand on everything of moment in the county. We are like Dr. Jacob Gsell, of Wichita, Kansas, who, in speaking of a similar set-up in his county society, said, "We do not want a finger *in* anything, but we do want a finger *on* everything." The Lake County Medical Society does not have a single finger *in* anything that goes on in the county outside of the medical profession, but we *do* have a finger *on* all that goes on. We are going places and are getting things done—done in the way that we prefer to have them done!

DOCTORS AND DEFENSE BONDS

During World War I we had several Liberty Bond campaigns; these were well planned long in advance, and when the various drives were finally made several thousand citizens devoted one or more days to the solicitation, covering practically the entire population of the country.

Now we have a different type of campaign and a different type of bond, known as Defense Bonds. No definite date is set for these events, the sale of these bits of investment paper goes on every day and practically every hour in the day. The American people are Defense Bond conscious; they know these bonds are good investments; they know that every dollar invested therein is actual, quick, cash-in-the-pocket of Uncle Sam — and in these times that reverent old gentleman needs a lot of such ready money.

When you buy Defense Bonds or Stamps this cash is immediately sent to the United States Treasury. There is no long period of waiting for bonds to be printed, advertised and sold. The money you lay down for them today is in Washington tomorrow and is put to work at once.

Medical men all over the country, so we are told, are buying these bonds but not to the degree expected of them. We are asked to publicize Defense Bonds, to ask that our folk make regular purchases of these investments. Some time ago it was suggested, from Washington, that steps would be taken to more than strongly urge the purchase of these bonds, some going so far as to say that allotments should be made.

We do not believe this is advisable nor that it will be found necessary, although Treasury officials do have a very accurate check on the financial abilities of American residents, and if they happen to check on individuals who have not bought any of these securities they *might* do something about it.

We know of no purchase that gives more personal pleasure than this; every time we walk out of the bank carrying the freshly-printed, crisp bit of paper, stating that in ten years Uncle Sam will be glad to re-purchase it at a neat little profit to the holder, we step a little higher and feel a lot better about the future of our country. We have done our bit for the week, financially.

If *you* have not tried this, please do so today. Bonds are available most every place—at your local post office, at your bank, even in your neighborhood stores. Buy Stamps, if you must; Bonds if you can — but buy plenty and keep on buying!

DOCTORS' DISEASE

A list of the Indiana physicians who died in 1941 appears in this issue, and shows one hundred twenty-eight deaths, which is the heaviest death rate in several years—the number last year being eighty-nine. Again some form of heart disease is given as the most frequent cause of death in

the death certificates of physicians. This time exactly fifty per cent of these certificates designated some form of heart disease as a causal factor. Of the other wear and tear diseases arteriosclerosis appeared as the cause of death in twenty-one cases, cerebral hemorrhage in thirteen, renal disease in eleven, hypertension in eleven and senility in nine. Malignancy appeared as the cause in thirteen cases, diabetes in six, auto accidents in four, falls in three and suicides in three. Two deaths were caused by firearms and one by hanging. Again for the third year no death was reported from lobar pneumonia.

It appears that the majority of physicians die from causes that may be attributed to the stress and strain of their profession. There is too much worry, hurry, long hours, exposure and nervous tension. With the shortage of men in each community, resulting from their services with war forces, the burden will become increasingly heavy upon those who remain, and these physicians will be the ones that are least able to stand such increased effort since most of them will be men in the older brackets. It might be well if those who must serve increasing numbers of the civilian population would protect themselves by limiting their services and hours in such a manner that they can give maximum service with minimum effort on their own part. If one does much driving, he should get a driver for his car. In the smaller towns the physicians' services might be staggered on Sunday, with one physician working one Sunday and another physician the next, and in the case of an epidemic this might also be made to apply to night calls. The needs of the next few years will be hard on the medical men, so watch your step and prolong your service to your fellow men!

Editorial Notes

Dr. James B. Maple, chairman of the Committee on Necrology of the Indiana State Medical Association, has submitted a short editorial which appears in this issue of THE JOURNAL. Dr. Maple directs attention to some very important matters.

Comes now the *Journal of the Kansas Medical Society* in gorgeous color, new format, a better quality of paper, and all. The medical journal of the present day, without color, is becoming a rarity —even the dignified daddy of 'em all, *THE JOURNAL of the American Medical Association*, now indulges in a few splashes of color. This reminds us that if THE JOURNAL comes to you one of these days with a paper less bright, even with a tinge of yellow thereon, do not blame the printer, do not blame THE JOURNAL staff — it will be because there is a priority on sulphites, which is greatly used in paper making.

The Indiana State Pastors' Conference, at a recent meeting, passed a resolution calling for a recodifying of the marriage law. Among other suggestions is one to the effect that the sale of "marriage certificates" by county clerks be absolutely prohibited. We trust that the 1943 legislature will give due attention to the plea of these clerics and that the new law will completely close up the "marriage mills" that continue to exist in our state.

We often had wondered as to the source of the great seal of this sovereign state; now comes the answer via a clipping from the *New Harmony Register* of rather ancient vintage, December 18, 1875, which states: "The man who designed our State Seal is dead. In the language of the Dutch poet, 'It is well.' Any man who would try to make people believe that a full-grown buffalo would deliberately rush up to a Granger who was chopping down a tree at sunrise ought to die"!

Industrial accidents have decreased at an amazing rate during the past few years. Since 1913, steel has shown a decline of ninety per cent in such cases, and in 1940 that industry had the highest safety-rate in its history—standing forth in the entire industrial list. For every million working hours in steel plants during 1940, only 6.5 accidents occurred. This information is obtained from the records of the National Safety Council and shows that while steel-making has reached its highest production in history, the safety-factor is greatly on the increase.

Even the most ardent lover of birds will have to admit that at times some varieties become an extreme pest, particularly in our larger cities where they take over many of the most imposing and important buildings. Just now our capital city faces a bird problem of no mean proportions, the offending creatures being the pigeons and the starlings. Years ago we were concerned with the English sparrow, which seemed "of a mind" to take over our cities. Of late, however, they do not appear to be so much of a problem, now that the other two birds have asserted themselves. We note in one of the Indianapolis papers that the local bird pest population has reached the million mark and that some 20,000 have elected to make the federal building their home. The City Hall also harbors several thousands of the feathered tribe. While we admit a certain degree of pleasure in seeing pigeons dropping down on down-town sidewalks to receive provender from those who make a daily habit of providing them with a ration of nuts and popcorn, we must agree that when the situation reaches the *pest* stage something should be done about it.

When medical men become interested in a matter they really *are* interested! This was evidenced by the attendance at the Secretaries' Conference on January twenty-fifth. Ordinarily, the attendance at these annual meetings runs about one hundred twenty-five to one hundred fifty. At the meeting on the twenty-fifth there were some seven hundred fifty registrations, and probably two hundred or more did not register. The chef at the Indianapolis Athletic Club had been told to prepare two hundred twenty-five dinners and when some five hundred hungry medics clamored for a seat at the table he was forced to do something about it. However, he managed to feed the five hundred, but several hundred had to go elsewhere for their Sunday evening meal, since there was no more space available in the club dining rooms.



The highlight of the Secretaries' Conference was a discussion of the WAR and the part that is to be taken by the medical profession of Indiana. This picture taken during the Conference shows, standing—left to right, the guest speakers, General Lewis B. Hershey, director of the Selective Service System, Washington, D.C., and Major Samuel F. Seeley, M.C., executive secretary of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians. Seated—left to right, Dr. Larue D. Carter, member of the Corps Area Medical Advisory Board, Dr. Charles R. Bird, chairman, M-Day and Veterans' Affairs Committee, Indiana State Medical Association, and Dr. Carl H. McCaskey, president-elect of the Indiana State Medical Association.

Indiana University School of Medicine, in line with numerous other medical schools over the country, has arranged a new schedule. As announced in the February JOURNAL, graduation for 1942 has been advanced to May tenth. The third semester will open on May twelfth, this being an innovation in Indiana. The "regular" fall term will open on September third. It also has been announced that the freshman class for the coming college year has been materially increased.

The management of erysipelas seems to be much simplified according to a recent article in *THE JOURNAL of the American Medical Association*, by Drs. Shank, Maxwell and Bozalis, of St. Louis, who state that "The prompt response of erysipelas to sulfanilamide, or one of its derivatives, makes this the treatment of choice and renders other treatment measures obsolete." They report that in a series of one hundred and sixty-five cases "In no instance was the lesion seen to spread after the first thirty-six hours of chemotherapy." In eighty-four of these cases the elevated temperature returned to normal and remained there. There were five deaths in the list of one hundred sixty-five cases—an unusually low rate.

With the expiration of the insulin patents, medical men had begun to fear that their supply of properly prepared insulin products might be seriously hampered. As so often happens after the expiration of various patents, inferior products soon reach the open market. However, owing to Congressional action we are assured that the insulin of the future will continue to be of standard requirement, the Federal Food, Drug and Cosmetic Act having been so amended as to take care of that important matter. Federal Security is promulgating the regulations under which this product may be prepared and marketed. The medical profession long abstained from the practice of patenting drugs and devices, and only in recent years has it resorted to this practice. As we have frequently said, insulin and the vitamins have reached their present prominence due to the fact that their preparation has been controlled via the patent route.

In war-time, when so many things are prescribed as well as proscribed, it would seem an opportune time to do something about the free-and-easy dispensing of certain drugs, particularly the barbiturate group. Some two years ago the Indiana State Board of Health set out rules regarding the dispensing of these drugs without let or hindrance, but there are still too many sources from which the general public may obtain the drugs merely for the asking. Legislative enactment has been asked, only to be met with numerous objections, chief of which is the cost of enforcement of the regulations. Under the present set-up we may expect to find the use of these drugs about as common as the use of aspirin. Almost every day we hear patients comment on the fact that they "simply live on" this or that barbiturate-type tablet. We quite agree with a recent statement of one of our health officials to the effect that drastic measures will have to be employed to stop the indiscriminate sale of these harmful, if improperly used, drugs.

On July 4, 1888, a young man was observed "hanging out his shingle" down in the little town of Homer, in Rush County, announcing to those who might look up and read that a new doctor had come to town. He had graduated a few months before from the Medical College of Indiana, at the state capital. Some six years later he removed to Rushville, the county seat, and only recently decided to call it a day and retire from active practice, this after a medical career covering almost fifty-three years. During this period he has found time to interest himself in various affairs of the community, serving as county coroner, city and county health officer, in addition to many other duties. Through the years he has maintained an active interest in organized medicine. What a contribution could such a man make to the history of Hoosier Medicine!

A few months ago we mentioned the fact that vacationists desiring to look over Greenwood Lake, down in southern Indiana, would find at least half the lake shut off because of the military center having been established nearby. Now comes the information that the lake will be entirely closed off and that no visitors will be permitted to approach its immediate neighborhood. Army officers have made this pronouncement which, of course, is quite effective; they hold that because of the governmental activities it would be foolhardy to allow folk to gather about the lake resort, therefore it will be closed. Many Indiana physicians had planned to stop at this eight-hundred-acre body of water, having learned that the Conservation Department had long since heavily stocked it with game fish—all of which had reached sizeable proportions and were awaiting the coming of the Disciples of Isaak Walton.

Doctor M. O. Bousfield, director for Negro Health, Julius Rosenwald Fund, in a radio address from Peoria, Illinois, on January eighteenth, as a part of the "Wings Over Jordan" radio program, gave a very comprehensive survey of the Negro medical and dental groups of the country, offering the services of these groups to the United States armed forces. In concluding his address he said, "Uncle Sam, these assets we lay on thy war shield. We lay them there with pride of accomplishment, as once again Negroes offer their strong backs, sinewy muscles, and stout hearts, which we have so liberally given to the development of our country and the defense of our Democracy." There can be no question as to the desire of the members of the National Medical Association and other allied groups to be of service during the present emergency and there is no question as to the competence of these professional men and women. It is to be hoped that some plan may be evolved whereby such services may be accepted by those in authority.

The recently adopted rule of the Epworth and St. Joseph hospitals, South Bend, limiting the number of visitors to patients in these hospitals to two per day, seems to be working out most satisfactorily, according to the report of Dr. F. R. Nicholas Carter, secretary of the board of health of that city. He states that considerable progress has been made and that while numerous persons complain about the rule, the noticeably good effects on the patients are such that the rule will not be suspended. As Dr. Carter says, "It is not overstating the fact when we say that in many instances as many as fifteen or twenty people have been known to visit a sick person in the hospital in one day. It is very tiring for a person in sound physical condition to entertain that many people in one day." We wish that other hospitals, all of them in fact, might emulate the example of these South Bend institutions.

Done anything about your "Victory Garden"? Better be thinking about it since these little plots are this year to be very popular throughout the country. For some two decades we had been in the habit of utilizing the "back yard" space for flowers, but today, it is not so much the flowers we are thinking about. This bed will be suitable for peas, another for beans, a third for radishes—and so it goes until it begins to appear that the flowers will have to be secondary. Of course, our perennial beds will be pretty much undisturbed, but the plots where we have been wont to experiment with the newer varieties of flowers will be used for more practical purposes. We would not be at all surprised to find some morning a few rows of green onions adorning the spot that last year gave us Petunias, Phlox, Vincas and marigolds to gaze upon throughout the summer. But this is the time of war and a few dollars plucked from one's own garden in the way of vegetables will help a great deal.

Accidental deaths, always a subject of interest to the medical profession, reached an all-time high in 1941 with 101,500 persons killed in various accidents throughout the country during that year. In addition to these there were almost a million accidental injuries. The National Safety Council estimates the cost at nearly four million dollars! Traffic accidents, as was to be expected, formed the major portion of these casualties, some 40,000 lives having been sacrificed in automotive accidents—a marked increase over 1940. So it is that traffic accidents continue as one of our major problems; what to do about them? what legislation may be enacted to curb this growing menace to American safety? It is being pointed out that with the curtailment of traffic as a result of Federal legislation and rulings regarding the sale of cars and the replacement of worn-out tires — probably a restric-

tion at a later date in the matter of the sale of gasoline — there will be a marked reduction in the number of these accidents. However, in this same connection it should be borne in mind that many folk will continue to operate their cars so long as the tires last, which means another potential driving hazard. Added to this risk will be the use of re-capped tires and tires made of used rubber, tires which should not be used at a speed to exceed thirty-five miles per hour. Hence, with all the present restrictions and those to come, the traffic hazard will still remain with its accompanying list of casualties. The problem is by no means solved; it really will become more acute.

What right has the county health officer to demand immunization for smallpox and diphtheria? That question long has been a poser in many sections of the state and only recently did headquarters have such a query. Albert Stump, attorney for the Indiana State Medical Association, gives the following opinion in the matter:

"The local Boards of Health have the power to require and enforce the vaccination of school pupils as a prerequisite or condition of their being in school, where there is an epidemic or conditions indicate that there is reasonably anticipated an epidemic of smallpox or diphtheria. The adoption of the requirement of vaccination should be an act of the local Board of Health where the regulation applies to a city or town. Where it applies to a county it should be the County Health Officer.

"The resolution of the local Board or the order of the County Health Officer should recite that in the opinion either of the Board or of the Health Officer there is danger of an epidemic of smallpox or of diphtheria, that an emergency exists, and that the public health and safety demand the regulation or order for the preservation of the public health and to prevent the prevalence or spread among the inhabitants of either the county or the city or town of the diseases of smallpox and diphtheria.

"It has been held in Vonnegut v. Baun, 188 N.E. 677 (Jan. 31, 1934), and in Blue v. Beach, 155 Ind. 121 (1900), that school children may be required to be vaccinated as a sanitary condition imposed upon their privilege of attending school during a period either of actual or of threatened epidemic of smallpox. There is no case apparently involving diphtheria in the State of Indiana, but the same principle would apply to diphtheria as courts have applied to smallpox."

DO NOT FAIL to read General Hershey's talk, on page 123, and Major Seeley's talk, on page 126. For further information on the War Service, read page 162.

The National Association of Retail Druggists urges income tax deduction for expenses incurred for medical services and supplies:

THERE SHOULD BE NO TAX ON HEALTH!

"The health of the people is an important military factor; it may be no less decisive than airplanes and guns in winning a war. If reports of crumbling of Hitler's power are well founded (and the debacle in Russia seems to confirm them) they may not be entirely unrelated to other reports which have filtered through the wall of censorship from time to time, that there has been an alarming deterioration in the health of the German people since the war began. A sick nation cannot stand up indefinitely against the tremendous pressure of modern warfare upon civilians and soldiers alike.

"In this connection, there are reports coming out of Washington in relation to the proposed income tax levies for 1942 which are disquieting to every person who realizes the close connection between individual incomes and public health. One radio reporter recently stated that it is proposed, in influential circles, that income-tax rates be raised to the point where not even the wealthiest citizen will have more than fifteen thousand or twenty thousand dollars of his income left after paying his taxes. While this report may be an exaggeration, there can be no doubt that every family will have to make a drastic revision of its scale of living. Against this there can be no complaint; for we are at war—a critical war upon the outcome of which the very existence of the nation may depend.

"The government needs revenue—billions of it. There should be no stinting of financial sacrifices upon the part of the people. Nevertheless, tax laws should be so framed as to do the least possible permanent damage; taxes should hit the superfluities and extravagances, and certainly not the most essential needs of the people—those necessary for the maintenance of their health.

"It is a strange quirk of human nature that when people are forced to economize, they start by neglecting their health. They delay a visit to the doctor, trusting to luck that they will recover without treatment. Thus they allow ailments to become permanent and serious, which might have been cured easily if identified and treated at the beginning. There can be no doubt that one of the worst results of drastically increased taxes will be a general impairment of public health—unless the government does something to prevent it.

"One of the purposes of burdensome taxes, we are told, is to direct spending into channels where it will not contribute to inflation or draw on raw materials needed for the prosecution of the war. If that is true, Congress in framing the new revenue bill should adopt measures to direct spending into channels which contribute to the public health and to discourage less important spending. *This it could do by allowing the tax-payer to de-*

duct from his taxable income, money spent for medical care and treatment.

"If a tax-payer were to know that on one hundred dollars of his income spent for a new radio he would be taxed thirty dollars, forty dollars, or fifty dollars, depending on his income-tax bracket, whereas he would not be taxed at all on one hundred dollars on his income spent for medical attention, he would be quite likely to get along with the old radio and to use the money for guarding his family's health.

"The proposal is not new. The Minnesota income tax law, since its enactment, has contained a provision permitting the tax-payer to deduct for payments made to his physician or dentist, for hospital and nursing service, and for prescription medicine.

"Such a provision in the Federal law would not cost the government much revenue in the aggregate; and the loss would be made up, many times over, in keeping the people strong for war and defense, and in maintaining their morale.

"The National Association of Retail Druggists, through Secretary John W. Dargavel, has communicated to President Roosevelt, Secretary Morganthau, and to members of the Ways and Means Committee of the House of Representatives and the Finance Committee of the Senate, a recommendation that the new Revenue Bill exempt income spent for medical care; and has sought the cooperation of the American Medical Association, the American Pharmaceutical Association, and other organizations interested in the public health, in furthering this movement.

"Individual druggists can be helpful by contacting physicians, dentists, nurses, and other pharmacists in their respective communities and in communicating with their respective senators and representatives in Congress. The problem should be laid before the governors of the various states in order that they may understand that a serious situation impends and be induced to use their influence to avert it.

"Work on the new Revenue Bill has been begun, and prompt action is, therefore, imperative. This may be organized pharmacy's best opportunity to serve the nation unselfishly during its present great emergency."

RESOLUTION ADOPTED BY LAKE COUNTY MEDICAL SOCIETY

Immediately following World War I there was considerable criticism because many of the physicians returning from Service were unable to take over certain appointments they held at the time of enlistment. The House of Delegates of the State Association ruled that such matters were for the local societies to solve. The Lake County Medical Society adopted the following resolution at its meeting of February twelfth:

"WHEREAS, many members of the Society have been called or will be called to the Service of the country in the Army, Navy, Marine, or other forces or departments of activity, and

"WHEREAS, during their absence members remaining in the local field will be called upon to take over and substitute for such members as are in the Service, and

"WHEREAS, it has been the experience heretofore that it has been difficult for members in the Service to re-establish themselves upon returning to their private practice, particularly with respect to industrial, insurance and other similar appointments, and

"WHEREAS, the Society desires to adopt a policy in aid of the members going into the Service, to the fullest possible extent and ability of the Society so to do,

"THEREFORE, BE IT RESOLVED that any member who is appointed, called or selected to substitute for members going into the Service, in the work of industries, railroads, insurance, or other institutions, shall, at the time of being substituted for such retiring member, make it a condition, upon which he accepts such appointment, that the same be as a substitute for the member entering the Service and of a temporary nature, to be terminated upon the return of the member to his private practice, and to that end the substituting member shall execute and deliver to the institution or organization, making the appointment, a letter substantially in the form attached hereto and adopted as a part of this resolution.

"BE IT FURTHER RESOLVED that failure or refusal to execute such a letter shall be deemed to amount to gross misconduct as a member of the Society and subject to be dealt with as such under the Constitution, By-Laws and Regulations of the Society.

"BE IT FURTHER RESOLVED that members are requested to communicate to the Secretary a list of appointments held by them at the time of leaving for Government Service, together with the names of physicians to whom these appointments have been assigned.

"To A. B.

"In accepting the the appointment to render medical and surgical services to your employes in the manner heretofore rendered by C. D., who has now entered in the Service of the country and was compelled thereby to relinquish his private practice temporarily, I wish to be understood as accepting such appointment merely as a substitute for C. D., and ask that upon his return from the Service and desiring reappointment or reinstatement by you, such reappointment, insofar as I am concerned, shall be made by you. I wish it further understood that I am in no sense a candidate for permanent employment in such capacity if the said C. D. returns and desires to resume his activities.

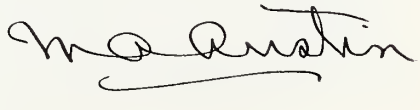
"A copy of this letter is going to C. D. and to the Lake County Medical Society."

President's Page

EXCLAMATORY

Two pertinent paragraphs appeared in current issues of *Time* magazine. One is a review of Harvard Professor Levin's book on James Joyce, in which it said "Levin was one of the few that gave Joyce the sense that his writings had a reader." The other comment concerned the recent Centennial Anniversary of the Cleveland *Plain Dealer*. The founder, Joseph William Gray, declared in his first issue that "The stupid fool who cannot in this age of stirring events throw some fire into his writings ought to throw his writings into the fire." My record of the response to my first contribution to the President's Page is one hundred per cent better than Joyce's seems to have been, for *two persons* told me they had actually read my page. With the high cost of printing it would be much cheaper to run a single line under the heading of the President's Page, as follows: *If interested send for a copy of the current Asbestos Archives.*

I realize that the practice of medicine has changed so much in the past decade that such old fashioned ideas as I have nursed along for forty-five years are rather passé. But a lot of them will probably survive even a third or fourth World War, at least in America where better medical service has been available to more people than in any other country. The *Gay Nineties* gave none of my contemporaries any of the commercial ideas that now are dominant among the young men entering practice. I rented a livery rig until I could afford to purchase a horse and buggy of my own. Nowadays, when a young physician starts in practice, he aspires to a show place near the Country Club and the ownership of at least two automobiles within five years. I recently was in the home of one young physician whose parents and in-laws were just good honest plain people. Everything in the house was the last word from the standpoint of design and completeness, but nothing in the house expressed any association with the people who lived in it. An architect had planned the house and an interior decorator had furnished it. It had no more *hominess* than a display room in a furniture store; *it represented nothing but a good credit rating.* As an investment, seventy-five per cent of its value can be deducted as soon as we have taken the "Japs" out of khaki and again put them in kimonos. And "ohmigod" the taxes and upkeep. I suppose that these young fellows' wives would have their own reserved opinions of our jumble of Jacobean, Early American and late Sears Roebuck furniture, but most of the few pieces we possess are associated with some circumstance and identified by some worth-while memory. In my library they might appreciate the dozen bound volumes of *Godey's* and *Peterson's* magazines, with their full-page colored plates of bustle and hoop-skirt costumes. But I am sure they have never heard of such authors as Mary Jane Holmes, Mrs. E. D. E. N. Southworth, Georgia Sheldon, George Eliot, or Grace S. Richmond, full sets of whose works came to me from my mother. The old chair in the bathroom, with its split hickory bottom and half the knob burned away from the top left side of the back where my wife's grandmother's candle holder used to hang when she read or sewed at night, came from Elizabeth City, North Carolina, together with the solid cherry table we have in the front room, in 1838. It was a long trip to Wheeling, over the Alleghenies in an ox cart, where the family took a flat boat on the Ohio and drifted down to Lawrenceburg, Indiana, then proceeding by means of wagons to Adams Township in Madison County. In my reception room is an old cradle, now full of magazines, that has rocked at least six generations, and nearby is a small rocking chair which was used by my grandmother in Bullitt County, Kentucky, when she was a little girl. Commercializing medicine to provide ostentatious surroundings either in homes or offices is giving many thoughtful patients unfriendly ideas as to the compensation they have to pay for our services, and they are absorbing the propaganda for State Medicine and Government Health Insurance as a welcome relief from the growing expenses of too many unnecessary examinations, too much hospitalization, and too many operations. If mechanical medicine is to dominate our practice at the expense of the interest in our patients as individuals, ignoring their human frailties, their physiologic and psychologic reactions to environmental conditions, then we must expect these patients to—as far too many of them are doing—seek less scientific cultists or demand factory assembly line, state diagnostic clinics.



"INFORMATION PLEASE" ON WAR SERVICE

If you have any questions in regard to the how, when and wherefores of Army or Navy service and just what the Procurement and Assignment Service does in its attempt to get the right doctor in the right place during this emergency, we suggest that you read the statement which appeared in the February twenty-first issue of *THE JOURNAL of the American Medical Association.*

This statement, covering thirteen pages in *THE JOURNAL*, will be published as an Information Pamphlet, and copies may be obtained from the Procurement and Assignment Service, 601 Pennsylvania Avenue, Washington, D. C. From it you will learn about the creation, duties and functions of the Procurement and Assignment Service, for it is designed to answer most of the questions which may arise in the minds of individual physicians, dentists and veterinarians. If after reading the statement, either as it appeared in *THE JOURNAL of the American Medical Association* or in pamphlet form, you have additional questions or desire any further information, we suggest that you get in touch with your local county medical society committee, or with Dr. Larue Carter, Fifth Corps Area committeeman for Indiana, or Dr. Charles R. Bird, Indiana State chairman. Both Doctor Carter and Doctor Bird may be reached through the headquarters' office of the Indiana State Medical Association, 1021 Hume Mansur Building, in Indianapolis.

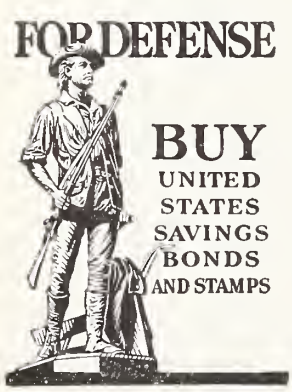
This pamphlet goes a long way to help answer the two most important questions asked by the individual physician today: What should I do to help win this war, and how do I go about doing it?

In short the answer to these two questions seems to be: *If you are below thirty-six years of age, send in your application for active service to the Procurement and Assignment Service now.* If you are older than thirty-six, wait and sign the special Enrollment Form that should be received by every physician, dentist and veterinarian before the end of March. The additional information obtained through the special Enrollment Form will bring up to date the material already obtained through the American Medical Association and other questionnaires, so that insofar as possible each person will be placed in the work for which he is best qualified.

Each physician will indicate his first, second, third and fourth preferences of the military, governmental, industrial or civil categories that may require his assistance. From the Information Pamphlet you may learn what agencies may make requisitions for medical personnel through the Procurement and Assignment Service. You will also learn how applications for commissions in both the Army and Navy are handled. The subject of "Occupational Deferments for Physicians" is handled in detail, and the important memorandum, signed by General Lewis B. Hershey, director of Selective Service, on January 28, 1942, is quoted in full. Special information pertaining to specialization, citizenship, college qualifications, and women physicians also is included in the pamphlet.

BUY UNITED STATES DEFENSE BONDS

The Defense Bond Committee of the Marion County Medical and Dental Society has met with various other of the Defense Bond Committees and it has been decided that the professional groups must be approached in a different way from the employee groups.



The employee groups in industry are being solicited to have ten or fifteen per cent of their pay withdrawn for defense bonds each month and most of the large industries are going into this in a patriotic way.

The medical and dental professions will respond to the best of their ability. The suggested plan for the professional group is called the Bond Draft Plan. The bond buyer signs a notice to his bank that he desires a set amount deducted from his account each week, each two weeks, or monthly, and that the bank invest this in a defense bond and send the bond to him. The banks have agreed to cooperate in this undertaking.

We must win this war and it takes all we can afford to raise the money for this purpose. The committee hopes that the doctors and dentists will more than do their part.

James H. Stygall, M.D., Chairman
Norman M. Beatty, M.D.
George S. Bond, M.D.
Fred E. Gifford, M.D.
Walter F. Kelly, M.D.
Earl A. Woods, D.D.S.

ORGANIZATION OF CHILD-HEALTH CONFERENCES, PRENATAL CLINICS, AND HOME DELIVERY NURSING SERVICES IN INDIANA

INDIANA STATE BOARD OF HEALTH*

The Bureau of Maternal and Child-Health of the Indiana State Board of Health for the past few months has been actively engaged in the establishment of child-health conferences, prenatal clinics, and home delivery nursing services in many counties of the state. This activity has resulted from local requests for services in the presence of the National Emergency. The need of a preventive medical care program for the mothers and children of Indiana is realized now more than ever before. Likewise, many physicians are aware of the shortage of doctors which will result after many of the younger men are called into active military service. These physicians realize that there will be a very definite increase in the case load. In many instances the older groups of practicing physicians will be asked to carry on the medical care program of the civilian population. These men, therefore, realize that if they are to promote a preventive medical care program it will have to be done on a group or clinic basis. With properly organized and administered health conferences, the practicing physicians will not only be able to see a great many more cases, but will be assisted by a trained staff of professional and volunteer workers.

These health conferences are to be administered strictly on a preventive care basis and are not to be confused with clinics which diagnose and treat the sick mother or child. The medical care of the sick should be the responsibility of the private physician in his own office, with a strictly patient-physician relationship. These conferences are to be educational and instructive. They are to carry to the civilian population our present knowledge of such subjects as nutrition, growth and development, good health habits, and other valuable health information that many Indiana mothers and children are not receiving. This is especially true in the rural areas and in the overpopulated defense centers which now have been established throughout the state of Indiana.

The organization of health conferences for mothers and children is not a new idea. These conferences have been operated successfully in many of the metropolitan areas of the state for a number of years. The results of the operation of this type of health service are shown by a study of the morbidity and mortality rates of mothers and children during the past fifteen years. Indianapolis has and does operate fourteen child-health conferences, six county child-health conferences, and nine prenatal clinics—not including those in operation in the private and public hospitals of the city. Elkhart, Terre Haute, South Bend, and Evansville have operated this type of health program for many years. Indiana has lagged in the establishment of this type of health conference, especially in the rural areas and the smaller towns where the health needs of mothers and children are equally as great as in the metropolitan centers. The surrounding states of Kentucky, Illinois, Michigan, and Ohio during the past five years have established large numbers of health conferences in the rural areas.

The Bureau of Maternal and Child-Health of the Indiana State Board of Health, anticipating these needs and demands, especially from the defense areas, has formed a competent professional staff of consultants to assist local groups and county medical societies in the formation and administration of these new services. The Indiana State Board of Health is prepared to assist any local areas or groups in establishing these services, with the request that the services be operated by the local physicians and personnel who are particularly interested in the preventive fields of pediatrics and obstetrics. The Indiana State Board of Health has funds for the payment of the part-time services of physicians conducting these local conferences.

The initiative for the creation of these conferences should rise in the local community. A local group, such as the county medical society, a service club, a parent-teacher club, or any other group interested in the promotion of better maternal and child health should sponsor the local programs.

Refresher courses and field visits to establish conferences will be offered to all physicians who wish to participate in this program. Many excellent and well qualified practicing physicians, with the exception of those limiting their practices to pediatrics, have had very little experience in the health supervision of the well child. It will, therefore, be to the advantage of those physicians to avail themselves of these refresher courses and field demonstrations.

The equipment and housing of these conferences need not be elaborate or costly. They are comparatively inexpensive to operate. The success of these health projects depends entirely upon the full-fledged cooperation of local physicians, public health nurses, and the aid and support of some volunteer lay groups.

Any medical society or local group interested in the formation of these health services in local areas will be assisted by the Bureau of Maternal and Child-Health of the Indiana State Board of Health. Seven county medical societies are now negotiating with the Bureau for the establishment of a child-health conference or prenatal clinics. These counties will soon have such services in full operation. It is anticipated that within the next

* From the Bureau of Maternal and Child-Health of the Indiana State Board of Health.

year all defense areas and all district health departments will have established child-health conferences and prenatal clinics.

Further extension of the maternity nursing services, such as those which are now successfully operating in six counties of Indiana, cannot be expected to be established in the near future due to the inability to recruit qualified maternity nurses. Four requests for additional maternity nursing services are now on file in the offices of the Indiana State Board of Health. Supplies have been purchased, and these services are expected to begin operation as soon as qualified maternity nurses can be secured.

ABSTRACT: SUGGESTS A POSSIBLE CLUE FOR CAUSE OF PLANE CRASHES

A possible clue to one of the factors that may have played a part in some of the recent airplane crashes, the cause of which has mystified investigators, is suggested by C. C. Bunch, Ph.D., St. Louis, in the November issue of *War Medicine,* the bimonthly periodical published by the American Medical Association, Chicago, in cooperation with the Division of Medical Sciences of the National Research Council, Washington, D.C.

In his discussion of "The Problem of Deafness in Aviators," Dr. Bunch says: "Newspaper accounts of the investigations of recent airplane accidents do not mention the hearing ability of the pilots involved. The reports of the circumstances of several accidents lead one to think that in certain instances the pilots were not following the radio beam. In that at Salt Lake City the newspaper account stated that the plane was approaching the landing field on the radio beam. A few moments later the pilot turned off his course. A storm was in progress at the time. In the recent Chicago accident it was reported that the pilot was attempting to land on the wrong runway. A snow storm was in progress.

"As in the case of the graduate student whose audiogram is recorded, the pilot may not be aware of any hearing loss at all. On the other hand, if he did know of it but was unaware of its significance in his profession, it would be human nature for him to attempt to conceal it. These problems may be solved only by frequent accurate audiometric tests by competent examiners."

In his discussion of the general problems presented by the subject, Dr. Bunch says that blacksmiths' deafness has been known since 1830 and that as the steel industry developed, this peculiar form of deafness became sufficiently well known to be called boilermakers' deafness.

"According to the best information available," he continues, "the noise in a boiler shop reaches an intensity of level of about 100 decibels and that from an airplane motor about 110 decibels. If continuous exposure to the noise in a boiler shop results in diminished hearing, it is logical to expect that . . . the louder noise will produce hearing losses more frequently and more quickly. . . .

"There is no evidence that the ordinary use of the telephone will result in deafness. . . .

"The public knows that the pilots of modern planes are at times in communication with the radio stations located at landing fields. . . . Whether the conditions under which he must use his radio would result in diminished hearing is not known to the interested public. . . . Padden, discussing Wright's paper entitled 'Medical Supervision of Air Lines,' made these significant remarks:

" 'The increasing importance of radio and radio beams finds a condition of static ears occurring in quite a number of pilots. It requires intense concentration for a pilot to listen four hours to *ta-ti-ta.* Occasionally I sit up front and stick the ear phones on and I don't wonder they get static ears with electrical storms, etc. I think I'd have static ears in one trip.'

"Just what he meant by 'static ears' is difficult to understand. Is it possible that the static which occurs during thunder storms might cause temporary or permanent hearing losses which would adversely affect the pilot's efficiency?

"Nearly every one has had the unpleasant experience of attempting to use a telephone located in a noisy place. The pilot must use his radio in the presence of the roar of the motors of his ship, and in order to hear it he must turn it on louder than would ordinarily be necessary. Unfortunately, as he increases the loudness of his radio signal he must also increase the loudness of the static, thus creating a grave situation to say the least. . . ."

In summarizing his discussion, Dr. Bunch says:

"It is not scientific to assume that hearing losses which have been found in those who are employed in one industry will be found in those employed in another unless a common cause exists. In this instance it appears that a common cause, that is, excessively loud noise, exists. The following conclusions appear to be definite but cannot be proved without more investigation:

"1. The best evidence available indicates that the loud noises of airplanes and airplane motors often cause definite hearing losses in pilots.

"2. All pilots are not affected to the same degree.

"3. The hearing loss most frequently encountered in those who have been exposed to loud noises is for tones near c-4 (2048 double vibrations) and c-5 (4096 double vibrations). As the loss progresses with continued exposure, the acuity for tones of lower pitch is also affected.

"4. Pilots who have decreased acuity for tones near c-3 (1024 double vibrations) will have difficulty in understanding certain words over the radio and may not be able to understand exact landing instructions.

"5. If the radio guide beam has a frequency near c-3 (1024 double vibrations) pilots with hearing losses can follow it only when they keep their radios turned on louder than is ordinarily necessary.

"6. Lightning-created static in the cars of pilots who have their radios turned on loud may cause additional temporary or permanent hearing losses and incapacitate them to such an extent that they may be unable to hear the radio beam.

"7. The hearing loss in aviators is not unlike that in other persons who are constantly exposed to sounds of great intensity.

"8. Hearing losses of this type often escape detection. Those affected may be unaware of it. It cannot often be discovered in spoken voice tests as they are ordinarily conducted.

"9. A systematic study of the hearing of aviators should settle the dispute which exists among those who have interested themselves in this subject. It should determine (1) whether certain fliers are more susceptible than others to hearing losses caused by the noise of airplanes, (2) whether certain types of planes or motors are more harmful to hearing than others, (3) whether it is possible to develop adequate protective devices for the ears, (4) whether certain candidates should be excused from this type of training because they are more susceptible than others to the effects of noise and (5) whether selection and protection cannot raise the efficiency and safety of the flying services."

(This is a continuation of the article published on this subject in the February issue, a series of which will be continued in subsequent issues.—Editor's Note.)

SOME EARLY AMERICAN MEDICAL AUTHORS

EDGAR F. KISER, M.D.
INDIANAPOLIS

During the last decade of the eighteenth century a devastating epidemic of yellow fever invaded this country and wreaked its vengeance particularly upon the city of Philadelphia. As a consequence an extensive literature developed regarding the subject. Most of the writers were in accord in their descriptions of the course of the disease, the characteristics of the particular epidemic and the means to be employed in combating it. Controversy arose as to its origin, some writers championing the idea of its having originated in this country, others asserting that it was brought to America from abroad, especially from the West Indies, in filthy ships, the miserable sanitation of which fostered its development. Benjamin Rush wrote voluminously concerning the epidemic and strove to establish its domestic origin. There were many papers by able writers, but the most energetic and most persistent contributor to the literature of the Philadelphia plague was a layman, Mathew Carey. This was the same Mathew Carey who in 1785 established a publishing company which, with many changes of partnership and management, functions today under the name Lea and Febiger. Incidentally, in 1790, he published a Catholic Bible which is at present the rarest of all the Bibles issued by early American printers.

Carey, born in Dublin in 1759, came to America in 1784. Always an impetuous youth he had been sent to Paris by his father a few years earlier to avoid prosecution for the publication of letters in Ireland which had been considered seditious. While in Paris he had made the acquaintance of the Marquis de LaFayette and Benjamin Franklin. The acquaintance with LaFayette ripened into a deep and lasting friendship which proved valuable to him when he came to America. From a fellow passenger the Marquis, who was visiting Washington at Mount Vernon, heard of Carey's arrival and sent his young friend a check for four hundred dollars. With this as his sole capital he began at once the publication of *Carey's Pennsylvania Evening Journal* which, from the very beginning, proved a successful venture.

Carey had always manifested an earnest interest in civic affairs, so it is not surprising that when the etiology of the plague became a matter of public interest and dispute he took a very active part in the controversy. He championed the cause of those who believed that yellow fever had its origin on foreign soil and stated emphatically and repeatedly that it was brought to Philadelphia from the West Indies. On November 14, 1793, he published the first of his pamphlets: *A Short Account of The Malignant Fever Lately Prevalent in Philadelphia: With a Statement Of The Proceedings That Took Place on The Subject In The Different Parts of The United States.* He dedicated this to the American Philosophical Society and obviously intended the work for a lay audience. In a prefatory note he urged the public to be fair in its evaluation of the many published statements concerning the origin and course of the disease. Then, in glowing terms, he painted a picture of the Philadelphia of 1793:

"Before I enter on the consideration of this disorder, it may not be improper to offer a few introductory remarks on the situation of Philadelphia previous to its commencement, which will reflect light on some of the circumstances mentioned in the course of the narrative.

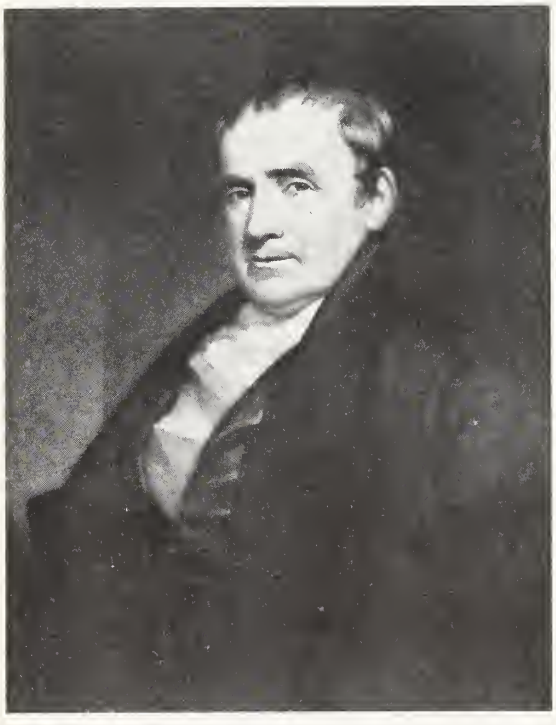
"The manufactures, trade, and commerce of Philadelphia had, for a considerable time, been improving and extending with great rapidity. From the period of the adoption of the Federal Government, at which time we were at the lowest ebb of distress, our situation had progressively become more and more prosperous. Confidence, formerly banished, was universally restored. Property of every kind rose to, and in some instances beyond, its real value; and a few revolving years exhibited the interesting spectacle of a young country with a new form of government, emerging from a state approaching very near to anarchy, and acquiring all the stability and nerve of the best-toned and oldest nations.

"In this prosperity, which revived the hopes of four millions of people, Philadelphia participated in an eminent degree. New houses, in almost every street, built in a very neat, elegant style, adorned, at the same time that they enlarged the city. Its population was extending fast. House-rent had risen to a most extravagant height; it was in many cases double, and in some treble what it had been a year or two before; and, as is generally the case, when a city is thriving, it went far beyond the real increase of trade. The number of applicants for houses, exceeding the number of houses to be let, one bid over another; and affairs were in such a situation, that many people, though they had a tolerable run of business, could hardly do more than clear their rents, and were, literally, toiling for their landlords alone. Luxury, the usual, and perhaps inevitable concomitant of prosperity was gaining ground in a manner very alarming to those who considered how far the virtue, the liberty, and the

happiness of a nation depend on their temperance and sober manners. Men had been for some time in the habit of regulating their expenses by prospects formed in sanguine hours, when every probability was caught at as a certainty, not by their actual profits, or income. The number of coaches, chariots, chairs, etc., lately set up by men in the middle rank of life, is hardly credible. And although there had been a very great increase of hackney chairs, yet it was hardly ever possible to procure one on a Sunday, unless it was engaged two or three days before. Extravagance, in various shapes, was gradually eradicating the plain and wholesome habits of the city. And although it were presumption to attempt to scan the decrees of Heaven, yet few, I believe, will pretend to deny, that something was wanting to humble the pride of a city, which was running on in full career, to the goal of prodigality and dissipation."

Thus, tacitly acknowledging the plague as a visitation, Carey reverted to the superstition of the primitive, who finds the etiology of disease in the anger of an offended deity. Following this grandiose picture of Philadelphia, he described at length the symptoms, the course, the complications and the treatment of yellow fever, always emphasizing its foreign origin and contagious character. It is possible that his disagreement with Rush regarding this phase of the disease originally prompted his publication of the pamphlets. He ended with a bill of mortality, a list of those dead of the disease.

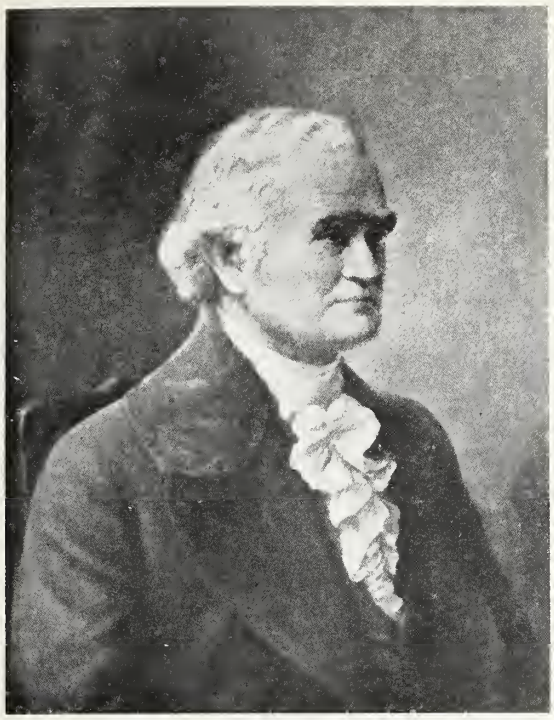
The tract evidently met the fancy of the people, for it sold so well that four editions were published between November 14, 1793, and January 16, 1794. An English edition was published in London in 1794, and there was also a French translation. It finally appeared, in 1830, in a volume of Carey's miscellaneous essays. What would the publishing house which he established give at the present time for such a best seller?



Mathew Carey

Noah Webster, born in Connecticut, was descended on the paternal side from the John Webster who was Governor of Connecticut in 1666, and on the distaff side from Governor William Bradford of Plymouth. He was graduated from Yale in 1778, taught in the local schools, then studied law and was admitted to the bar in 1781. While he won fame and fortune as a lexicographer, that he was a many-sided man is attested by the variety of his publications. His first notable contribution was a *Grammatical Institute of The English Language*, consisting of a spelling book, a grammar and a reader. Of these, the spelling book became enormously popular and continued so long after Webster's death. By 1861, more than a million copies of the book had been sold. In 1785, he published *Sketches of American Policy*, which he himself considered the first distinct proposal for a Constitution of the United States. *Rights of Neutral Nations In Time of War* appeared in 1802, and his epoch-making two-volume *American Dictionary* in 1828.

The thing that interests us as physicians, however, is that he strayed into the realm of medicine, more specifically epidemiology, and published two works of exceptional merit. The first appeared in 1796, under the title *A Collection of Papers On The Subject of Bilious Fevers, Prevalent in the United States for a few years past.* Webster addressed a circular to the Physicians of Philadelphia, New York, Baltimore, and New Haven, soliciting information on the origin and course of yellow fever. "The particular points," he said, "on which I wish to obtain information are the following: The origin of yellow fever in the respective places to which you belong—the time of its appearance and disappearance—its symptoms and the most successful mode of treatment—what proportion of persons seized with decided symptoms of this fever have died—how far the fever has been attended with specific contagion, and the proofs of this—in what situations as to free air, water, streets and buildings, this disease has been most fatal—what descriptions of people have suffered most, and their mode of living—what malignant complaints have, for two or three seasons, preceded the yellow fever—how it differs in symptoms from the ordinary bilious fever of the country—whether or not you have known a fever, with the same or similar symptoms, to occur in scattered instances, in other seasons than that in which the yellow fever has prevailed—and whether such cases can be traced to any known cause—and in short, please to communicate any other information which, in your opinions, may throw any light on the origin, nature and cure



Noah Webster

of the disease." It is evident from the information desired that Webster did some straight thinking as to the cause and course of yellow fever.

Replies were received from Doctors Valentine Seaman and Elihu H. Smith of New York, Taylor and Smith of Norfolk, Virginia, Eneas Monson of New Haven, and several others. Webster edited and published these replies, together with a chapter of his own on "Cleanliness and Ventilation" and a number of conclusions drawn from the articles received. The book was well received and the research seems to have stimulated in Webster an interest in the history of contagious diseases, for in 1799 he published a two-volume work entitled *A Brief History of Epidemic and Pestilential Diseases.* In meticulous English and beautiful literary style he traced the history of contagious diseases from the earliest recorded word through the year 1799. The epidemics of the Middle Ages were discussed in great detail, and the text in many respects rivals the famous treatise of Hecker on that subject. References accompany nearly every paragraph, and the resulting bibliography makes the work a valuable source book.

Of course, the story of yellow fever in America is thoroughly covered. The second volume lists "Bills of Mortality" during the seventeenth and eighteenth centuries, and in a long list of addenda Webster philosophizes on such subjects as Lunar Influence, Electricity, Vapors or Mephitic Air, The Revolution of Certain Comets, et cetera. Characterized by Osler as the most important medical work written in this country by a layman, it has become a coveted collector's item.

(To be continued in the next issue.)

UNDER THE CAPITOL DOME

INDIANA'S POPULATION GROWS OLDER

The population of Indiana is growing older, according to Thomas G. Hutton, statistician of the Indiana State Department of Public Welfare. The 1940 census report shows that 8.3 per cent of the state's population is sixty-five years of age or older, which, Mr. Hutton points out, is a substantial increase over the proportion ten years ago. Although Indiana is substantially in line with a general tendency throughout the United States toward an older population average, the trend is more acute here. Only seven states had a larger proportion of old people than Indiana in 1940. These were the New England States (excluding Rhode Island and Connecticut), Iowa, Missouri and Kansas. Compared to Indiana's 8.3 percentage, the national percentage of population in the older group was 6.8 in 1940.

In an article on "Our Aging Population" in the Public Welfare Department's official publication, Mr. Hutton said that a significant feature of the changing population structure is that the rate of increase in the proportion of old people in the nation in the decade from 1930 to 1940 was greater than it was in Indiana during the same period.

"The explanation of the presence of a larger proportion of aged in Indiana's population compared to other states seems to hinge largely on the character of interstate migrations," Mr. Hutton said in the official publication, and "neglecting the matter of the migration of aged to warmer climates for reasons of health, interstate migrations occur, for the most part, for economic reasons. It is usually the younger members of the population and those in the prime of life who move to improve their economic opportunities. States which lose more of their population by migration than they receive by migration will have a larger proportion of older persons in the population than other states which have a net gain from migration. This is what has been taking place in Indiana."

Mr. Hutton gives three factors which are tending to raise the population age. They are reduced immigration from foreign countries (that immigration brought mostly younger people to this country); a declining birth rate, and an increase in life expectancy which results in a decline in the death rate.

"There is some indication that the increase in life expectancy is leveling off and that future improvement in the death rate will occur at a much slower pace," Mr. Hutton said. "This will be especially true of the immediate future now that the nation has entered World War II. It is not anticipated, however, that this will lower the proportions of aged in the population. It may increase it, for war serves to increase the death rate chiefly among the younger population."

Mr. Hutton predicts that the anticipated increase in the proportion of older people in the next ten years will result in many new problems for the medical profession. He foresees more research and specialization in chronic diseases.

The Welfare Department statistician also predicts a growing need of hospitals for the chronically ill, and expansion of the Public Welfare Medical Aid Program, or some health insurance plan, or other plan, to provide care and treatment.

Mr. Hutton believes that the number of cases of mental diseases in old people can be expected to increase, and that state hospital facilities will have to be expanded to meet a growing demand for service.

NEW CAMP PRESENTS PROBLEMS

Health authorities already are giving thought to the venereal disease problem that will be laid in their laps as a result of the establishment of the gigantic new Army camp near Columbus. Just how big the problem will be cannot yet be determined, according to Dr. John W. Ferree, secretary of the Indiana State Board of Health. However, Dr. Ferree said he is confident that whatever is necessary will be done. Sufficient funds are available. Machinery for coping with the situation already is in operation and can be expanded as much as appears advisable. Local physicians in the military area may be called upon to aid in handling the situation, particularly in reporting known cases of venereal disease.

Suppression of prostitution in military areas is the keynote of venereal disease control, and military and civil authorities will cooperate closely in this phase of the program, Dr. Ferree said. Cities included in the military area of the new camp are Indianapolis, Columbus, Franklin, and Bloomington, with other smaller towns in the general neighborhood of the new camp. Federal, state, county, and city authorities will be expected to work together in suppression of prostitution and in handling cases of venereal disease. Existing laws and agencies will be relied upon principally, Dr. Ferree explained. This will be particularly true of the problem of repression of prostitution. City police, county sheriffs, the state police, and town marshals all are expected to help eliminate prostitution as much as possible.

Prophylactic stations for soldiers are already in operation in Indianapolis, and others may be added if a need arises, Dr. Ferree said. Clinics also are in operation in Indianapolis and Columbus. These could be expanded and others opened, most probably at Franklin and Bloomington, if needed.

Dr. Ferree pointed out that military authorities may establish restricted zones into which members of the armed forces are prohibited from going, and this power will go far toward eliminating the danger of infection through commercialized prostitution. But it will not eliminate the danger from "pick ups" who do not confine themselves to red light districts. Neither will it lessen the danger from nonprofessional women of loose character.

Dr. Ferree said that the Indiana State Board of Health will work in close cooperation with all federal, state, and local law enforcement and health agencies. A federal agency which is expected to be of exceptional value in connection with the whole problem is the Division of Social Protection of the Office of Defense Health and Welfare Service. Activities of this division are concerned with several phases of the problem. The Division of Social Protection has as its object not only protection of members of the armed forces, but also the protection of women and girls working in military areas. Work of this division, which is now being set up, will include an attempt to give women workers good living conditions and also working conditions that will not make them an easy prey to commercialized vice, Dr. Ferree said.

One of the state agencies which is expected to be of material help in suppression of commercialized vice is the Indiana Alcoholic Beverages Commission. This agency's power lies in its licensing authority and ability to revoke licenses of taverns. Licenses of taverns and other establishments can be revoked by the commission if prostitution is practiced in connection with the tavern operation. The fact that Indiana laws prohibit operation of roadhouses will help materially in handling the problem, Dr. Ferree said.

Establishment of local emergency medical councils on a county basis is progressing satisfactorily, Dr. John W. Ferree, secretary of the Indiana State Board of Health and chief of the Emergency Medical Service, reports. Detailed information will soon be sent to the local councils, Dr. Ferree said. The nutrition program also is making good headway, he said. Members of the auxiliaries of medical societies are giving excellent service in helping to set up the program.

ABSTRACT

FIND A HIGH RATE OF PHYSICAL FITNESS AMONG BRITISH MEN CALLED TO SERVICE

Men in the age group between 37 and 40 years called up for the fighting services in Great Britain have been found on medical examination to have a surprisingly high rate of physical fitness, the regular London, England, correspondent of *The Journal of the American Medical Association* reports in the December 27 issue. He says:

"Medical examination has revealed a high rate of fitness among the men called up for the fighting services; eight out of every ten have been found fit and many more will probably 'make the grade' after a few months of army life. A surprisingly high standard has been found in the age group 37 to 40; six out of ten have been found fit.

"The authorities have been agreeably surprised by the high standard of fitness of the older men. It was thought that men in their early thirties would show the effect of poor feeding in childhood during the last war and the sedentary lives they had led, but statistics disprove this. . . . The Germans claim that their men are far healthier than ours, but the fact is that their examination for army service is not so strict as ours."

WHAT WENT ON IN WORLD WAR I

Items from THE JOURNAL of March, 1917

THE JOURNAL for March carried but two scientific articles; E. D. Clark, of Indianapolis, reported Two Cases of Extra-Uterine Pregnancy, at or Near Term; and T. C. Kennedy, also of Indianapolis, discussed Radium Therapy.

* * *

The editor seemed mightily pleased that the biennial General Assembly had come to an end.

* * *

Editor Bulson editorialized on Intestinal Stasis, Electrotherapy and Legislative Action on Bills Affecting the Medical Profession.

* * *

The *Radium Quarterly*, also a new publication, had just made its appearance.

* * *

A new medical magazine had been born — *Endocrinology*, with Henry Harrower, of California, as its editor-in-chief.

* * *

General complaint was to the effect that the cost of surgical instruments had reached intolerable proportions.

* * *

The Arkansas Medical Society, following the example of Kentucky, had arranged to have an all-home-talent program for the annual meeting.

* * *

The newly-organized executive secretary's office at Indianapolis seemed to be functioning to the entire satisfaction of the Editor.

* * *

The original, imported Salvarsan and neosalvarsan was becoming scarce, but the American-made product had come upon the market and was regarded in many ways as superior to the original product, the observation being made that the local product was cheaper and less toxic.

* * *

The women of the nation were to cast their first ballot at the fall elections and Editor Bulson expressed the hope "That they make no worse job of it than the men." He also suggested that *all* women take advantage of this new-found right and "Not leave all to the frothy advocates of woman's suffrage, who have been kicking up so much disturbance by their intense partisanship and their ill-timed threats."

The Eli Lilly Company had given $25,000 toward the establishment of a Red Cross base hospital.

* * *

The new Witham Memorial Hospital at Lebanon had been opened.

* * *

A new state general hospital had been authorized by the Arkansas legislature.

* * *

The nine-hour workday for employes had been defeated in the Senate, 35 to 5.

* * *

The first county hospital to be built under a new state law had been opened at Rensselaer.

* * *

Dr. Arthur Guedel, of Indianapolis, had suffered a knee injury, caused by the back-firing of his automobile. (Probably pushing down on the starting crank!)

* * *

Dr. Joseph Rilus Eastman, Indianapolis, was marooned in Copenhagen, en route to his native land. He had started for America just before the break with Germany.

* * *

Governor James P. Goodrich had been presented with a card carrying the thanks of the student group at the Indiana University Medical School for his insistence in demanding suitable buildings and equipment for the school.

* * *

During the recent legislature a bill had been introduced requiring every appendix removed by operation to be sent to the state laboratory for section. If the appendix was found not to be diseased, then the late owner thereof would not be required to pay for the operation!

* * *

The Indiana newspapers, at the close of the legislative season, carried a story regarding public health bills, featuring what was purported to be a picture of the then secretary, Dr. J. N. Hurty. Editor Bulson opined "Dr. Hurty perhaps would not take a prize at a beauty show, but the homely, sickly, cadaverous-looking individual featured by the newspapers had little resemblance to our esteemed Secretary of the State Board of Health."

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

DEFEND AMERICA
With Defense Bonds

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

Deaths

Rufus L. Dooley, M.D., of Montezuma, died on January twenty-fifth. He was a graduate of the Pulte Medical College, Cincinnati, in 1895.

* * *

A. K. Gilbert, M.D., of Clayton, died on January seventeenth, at the age of ninety. He was a graduate of the Medical College of Ohio, Cincinnati, in 1877. Doctor Gilbert had retired from active practice.

* * *

Martha Brewer Lyon, M.D., of South Bend, died on January eighteenth at the age of seventy-one. She was a graduate of the Howard University College of Medicine, Washington, D. C., in 1907. Doctor Lyon specialized in ophthalmology. She was a member of the St. Joseph County Medical Socicty and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Henry Wilbur Irwin, M.D., of Indianapolis, died on February eighth at the age of sixty-one. He was a graduate of the University of California Medical School, Berkeley-San Francisco, in 1910. During World War I he served with the Fifty-fourth Coast Artillery. Doctor Irwin was a member of the Marion County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Condie Butler Beck, M.D., of Rising Sun, died on January twenty-third at the age of seventy-four. He was a graduate of the Kentucky School of Medicine, Louisville, in 1893.

* * *

Perry Arnold Kendall, M.D., of Crothersville, died on February first at the age of seventy-two. He was a graduate of the University of Louisville School of Medicine in 1893. Doctor Kendall was a member of the Jackson County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

James D. Byrns, M.D., of Mitchell, died on January eighteenth at the age of seventy-two. He was a graduate of the Louisville Medical College in 1894. Doctor Byrns was president of the Lawrence County Medical Society in 1941. He was a member of the Lawrence County Medical Society, the Indiana State Medical Association and the American Medical Association.

* * *

James Randall Cooper, M.D., who was recently appointed superintendent of the Smith-Esteb Memorial Tuberculosis Hospital at Richmond, died on February seventh at the age of thirty-eight. He was a graduate of the University of Nebraska College of Medicine in 1932. Doctor Cooper was a member of the Parke-Vermillion County Medical Society, the Indiana State Medical Association, and the American Medical Association.

DEATHS OF INDIANA PHYSICIANS IN 1941

(M) Member of I. S. M. A.; (H) Honorary Member; (R) Retired

NAME	AGE	DATE	PLACE	CAUSE OF DEATH On Death Certificate
Williamson, William R.	60	Jan. 2	Fort Wayne	Cardiac decompensation with chronic myocarditis and macrocytic anemia
Morgan, Robert R. (R)	76	Jan. 3	Boswell	Paralysis agitans. Arteriosclerosis
Reid, Franklin P.	66	Jan. 5	Indianapolis	Cardiovascular renal disease
Maxwell, John Harlan (R)	79	Jan. 10	Martinsville	Cerebral hemorrhage
Keeney, Stanfield H. (R)	78	Jan. 11	Indianapolis	Carcinoma of the prostate with metastasis and gastro-intestinal hemorrhage
Tinkham, Melvin W. (R)	74	Jan. 12	Fort Wayne	Bronchopneumonia.
Nussel, Frederick (H)	83	Jan. 13	Brazil	Pernicious anemia. Senility
Reifeis, Carl C.	47	Jan. 15	Indianapolis	Multiple abscesses along the paravertebral lumbar fascia, uretral abscesses
Fair, Charles S. (R)	66	Jan. 16	Fort Wayne	Cardio-renal disease. Arteriosclerosis. Chronic myocarditis due to rheumatic fever
Adams, Harry A.	69	Jan. 19	Indianapolis	Coronary occlusion
Dowd, Frank T (M)	59	Jan. 20	Indianapolis	Acute myocardial dilatation. Operation for obstructive jaundice, gastrocholecystostomy

NAME	AGE	DATE	PLACE	CAUSE OF DEATH On Death Certificate
Eley, Thomas C. (M)	48	Jan. 20	Plymouth	Coronary thrombosis. Coronary sclerosis
Lind, Henry Grant	59	Jan. 21	Edinburg	Inanition and failure of respiration due to recurrent malignant tumor of the brain
Anderson, Richard A.	60	Jan. 22	Vincennes	Coronary occlusion, myocarditis and previous infarct
Wishard, William N., Sr. (M)	89	Jan. 23	Indianapolis	Bronchopneumonia, congestive heart disease, essential hypertension
Hansell, George H. (H)	75	Jan. 24	Rising Sun	Coronary occlusion
Gilman, Lawrence H. (M)	46	Jan. 26	Indianapolis	Cerebral hemorrhage
McClary, Daniel V. (M)	72	Jan. 31	Evansville	Acute dilatation of the heart following prostatectomy
Spitler, Charles E. (H)	77	Feb. 2	Saratoga	Right-sided heart failure. General arteriosclerosis. Chronic interstitial nephritis
Burlington, J. Roy (M)	65	Feb. 2	Attica	Diabetes mellitus. Hypertensive myocardial failure
Short, Darwin M. (M)	36	Feb. 7	Owensville	Coronary thrombosis
Combs, George W.	80	Feb. 8	Indianapolis	Coronary occlusion
Huron, Willis B.	83	Feb. 13	Tipton	Arteriosclerosis. Coronary disease
O'Brien, William M. (M)	71	Feb. 15	Greencastle	Suicide by firearms
Turner, James A.	65	Feb. 19	Nashville	Bronchopneumonia.
Jones, Harry O. (M)	59	Feb. 22	Berne	Cerebral hemorrhage
Wadsworth, William W. (H)	77	Feb. 23	Muncie	Cerebral hemorrhage. Arteriosclerosis
Kimball, George W. (M)	68	Feb. 23	LaPorte	Arteriosclerotic heart disease
Vitou, Henry Edmund (M)	74	Feb. 28	South Bend	Bilateral diffuse bronchopneumonia
Strong, Lee Everett (M)	55	Mar. 1	Indianapolis	Hepatic insufficiency. Paralytic ileus
Sugg, Henry H., Jr.	74	Mar. 4	Mt. Vernon	Bowel obstruction
Stranz, Ladislas V. (R)	73	Mar. 10	Whiting	Coronary occlusion
Oberlin, Thomas W. (M)	66	Mar. 11	Hammond	Automobile accident
Millstone, Israel S.	87	Mar. 12	Gary	Acute intestinal obstruction. Carcinoma of the sigmoid
Reeve, Joseph L. (H)	83	Mar. 13	Edwardsport	Chronic myocarditis. Senility
Kenney, Charles B.	39	Mar. 15	East Chicago	Angina pectoris. Hypertensive heart
Cowan, James C. (M)	63	Mar. 16	New Haven	Acute dilatation of the heart Coronary occlusion. Injury to right shoulder
Moorhead, James J. (M)	78	Mar. 16	Terre Haute	Chronic myocarditis
Ferris, Edgar S. (M)	76	Mar. 17	New Castle	Cerebral Hemorrhage
AuBuchon, Flavian P.	67	Mar. 17	Forest	Angina pectoris
Dunlevy, George C. (M)	74	Mar. 19	Evansville	Carcinoma of the larynx
Luck, Fernande H.	50	Mar. 25	Indianapolis	Cerebral hemorrhage
Sprague, John S. (M)	63	Mar. 27	Indianapolis	Cardiac thrombosis. Diabetes mellitus. Cardiovascular renal disease
Fichman, J. Louis (M)	35	Mar. 29	Indianapolis	Ewing's cell sarcoma
Shook, N. J. (R)	80	Mar. 31	Corunna	Paralysis. Cerebral hemorrhage. Generalized arterioscleorsis
Reed, Caroline (R)	74	Apr. 4	Veedersburg	Rheumatic heart disease. Angina pectoris. Cardiac failure
Perry, George L.	71	Apr. 5	Portland	Malignancy of prostate and bladder. Metastasis to stomach and liver
Catterson, William E. (H)	78	Apr. 6	Noblesville	Paralysis. Parkinson's disease
Hunt, Estie E. (R)	39	Apr. 7	Pendleton	Pulmonary tuberculosis
Rainier, Alfred	62	Apr. 11	Remington	Cardio-respiratory failure. Carcinomatosis
Taylor, John M. (M)	50	Apr. 12	Indianapolis	Suicide, gunshot wound of the head
Norman, Seaton	80	Apr. 18	Indianapolis	Cardiovascular renal disease
Gammack, A. P. E.	73	Apr. 20	South Bend	Coronary sclerosis. Congestive heart failure
White, Hugh J. (M)	61	Apr. 21	Hammond	Acute bronchopneumonia following repair of postoperative hernia
Swope, Raymond E. (R)	66	Apr. 24	Rockville	Congestive heart failure. Chronic valvular heart disease
Phares, John W. (M)	72	Apr. 27	Evansville	Coronary thrombosis. Arteriosclerosis. Hypertension

NAME	AGE	DATE	PLACE	CAUSE OF DEATH On Death Certificate
Lambert, John A.	81	Apr. 28	Indianapolis	Uremic coma. Arteriosclerosis
Cromer, L. G.	82	Apr. 29	Union City	Coronary occlusion
Dennis, Fred A. (M)	65	May 4	Crawfordsville	Cerebral embolism. Hypertonia, chronic myocarditis
Kresler, Arthur R. (M)	63	May 5	Rensselaer	Angina pectoris with coronary thrombosis
Haley, Laura J. Cloud	85	May 11	Indianapolis	Coronary occlusion. Arteriosclerosis
Jones, John H.	81	May 14	Seymour	Fracture right hip. Senility
Harrod, Morse (M)	75	May 15	Fort Wayne	Erysipelas
McCully, Charles H. (M)	73	May 21	Logansport	Coronary occlusion. Arteriosclerosis. Cardiovascular renal disease
Chenoweth, Oscar U. (M)	64	May 26	West Lafayette	Cerebral hemorrhage. Hypertension
Sherwood, Walter C. (M)	64	May 29	Mitchell	Fracture surgical neck femur. Fall on ice
Applegate, C. R.	69	June 7	New Castle	Bronchopneumonia. Bronchitis
Murphy, John S.	85	June 8	Sullivan	Carcinoma base of tongue
Fleming, John C. (M)	68	June 8	Elkhart	Cerebral hemorrhage
Frazier, Sherman S. (H)	76	June 10	Angola	Carcinomatosis
Davis, Albert T. (M)	64	June 10	Marion	Glioma of the brain
Cleveland, Walter R. (M)	56	June 10	Evansville	Chronic cholelithiasis
Mayfield, Ambrose M.	70	June 25	Montmorenci	Coronary occlusion, mild chronic carditis
Franz, Ernest (H)	76	June 27	Berne	Cerebral hemorrhage. Hypertension. Diabetes mellitus
Clubb, John W.	81	June 30	Blanford	Leukemia
Hart, Douglas	80	July 1	Montgomery	Carcinoma of the face
Craig, James A. (M)	63	July 2	Gary	Mitral regurgitation. Chronic myocarditis
Peck, J. Webster (M)	70	July 7	Frankton	Cerebral thrombosis, chronic myocarditis
James, John H.	90	July 7	Anderson	Unknown
Doll, Frank R. (M)	50	July 23	Whiting	Coronary occlusion
Sharrer, J. C.	83	July 23	Francesville	Coronary occlusion
Walden, William M.	79	July 24	Newburgh	Rt. base hypostatic pneumonia
Jennings, William L. (H)	78	July 26	Indianapolis	Carcinoma of the tail of the pancreas. Metastasis in the liver
Barlow, Roscoe L. (M)	47	July 29	Gary	Mitral regurgitation. Chronic myocarditis
Hartloff, Charles W.	71	Aug. 1	Evansville	Diabetes mellitus
Barger, John G.	77	Aug. 4	Indianapolis	Coronary occlusion
Schuck, John H.	78	Aug. 8	Colfax	Arteriosclerotic heart disease. Auricular fibrillation
Austin, Rayburn C. (M)	43	Aug. 26	Ellettsville	Auto wreck
Cornell, J. Frank	71	Aug. 27	Galveston	Mesenteric thrombosis. Acute dilatation of the heart. Senility
Knoefel, August F. (M)	61	Aug. 27	Terre Haute	Coronary thrombosis. Myocarditis
Hamilton, Curtis C. (M)	57	Aug. 30	Linton	Brain tumor
Green, Nellie E.	98	Sept. 3	Fowler	Senility, uremia
Garrison, Henry M. (M)	56	Sept. 6	Evansville	Coronary thrombosis
Moore, Emma Whitson (R)	82	Sept. 12	Kokomo	Carcinoma of the breast
Boram, Eilan Vance (M)	64	Sept. 28	Muncie	Intestinal hemorrhage. Stomach ulcer. Gastroenterostomy
Throckmorton, Ora E. (R)	74	Oct. 4	West Lafayette	Paralysis agitans
Stephenson, Thomas J. (M)	73	Oct. 5	Anderson	Left hemiplegia. Cerebral hemorrhage
Savage, Claude A. (M)	48	Oct. 11	Fort Wayne	Cardiac decompensation. Coronary thrombosis
Recher, Lawson H. (M)	85	Oct. 11	Morocco	Cardiac failure. Arteriosclerosis
Hatfield, I. N. (H)	85	Oct. 13	Bluffton	Chronic myocarditis. Acute dilatation of the heart
Harter, Harry T. (M)	72	Oct. 16	Newtonville	Adenocarcinoma of the sigmoid with metastasis
Downing, J. Frank (M)	67	Oct. 18	Muncie	Chronic nephritis, vascular hypertension
Bloom, Harvey G. (M)	71	Oct. 23	Oxford	Nephritis. Prostatic hypertrophy. Cardiovascular disease
Mock, Albert D. (R)	75	Oct. 24	Marion	Myocarditis. Arteriosclerosis
Selfridge, William T. (R)	67	Oct 27	Indianapolis	Exhaustion psychosis. Hypostatic pneumonia
Ward, Clarence V.	67	Nov. 7	Indianapolis	Coronary occlusion

NAME	AGE	DATE	PLACE	CAUSE OF DEATH On Death Certificate
Carson, Samuel L. (M)	74	Nov. 10	Vincennes	Hypertrophy of the prostate. Auricular fibrillation
Travis, Richard C. (M)	42	Nov. 23	Indianapolis	Suicide by hanging
Spencer, Mavity J. (M)	70	Nov. 27	Indianapolis	Coronary embolism
McBride, James L. (H)	76	Nov. 29	Zanesville	Coronary thrombosis. Angina pectoris
Barnett, Walter W.	84	Dec. 1	Fort Wayne	Uremic coma. Chronic nephritis. Myocarditis
Williams, W. R.	84	Dec. 1	Greenville	Struck by auto, fracture of skull
Showalter, Joseph E. (R)	78	Dec. 1	Waterloo	Myocarditis. Cerebral sclerosis
Allen, G. Brannan (M)	53	Dec. 4	South Bend	Angina pectoris. Coronary sclerosis
Davenport, Isaac W. (H)	83	Dec. 4	Sheridan	Hypostatic pneumonia. Myocarditis. Senile degeneration. Arterisclerosis
Conley, Leander H. (H)	84	Dec. 8	Gas City	Chronic myocarditis
Washburn, Manner	91	Dec. 11	New Richmond	Chronic myocarditis. Chronic hypertension. Auricular fibrillation
LaSalle, Gilbert M. (M)	71	Dec. 11	Wabash	Cerebral hemorrhage. Hypertension. Arteriosclerosis. Diabetes
Shobe, William A. (H)	85	Dec. 18	Ligonier	Carcinoma of the liver with metastasis
Sandy, George	41	Dec. 19	Indianapolis	Auto wreck, skull fracture
Moore, Edwin P.	71	Dec. 22	South Bend	Acute congestive heart failure. Hypostatic pneumonia. Cerebral arteriosclerosis
Lewis, Miles J. (M)	66	Dec. 31	Marion	Cerebral hemorrhage. Hypertension

News Notes

Dr. R. P. Good has been appointed a member of the Kokomo City Board of Health.

Dr. Palmer Eicher, of Decatur, has been named health officer for Adams County.

Dr. James M. Burk, of Decatur, has been reappointed county physician of Adams County.

Dr. George R. Daniels, of Marion, has been appointed health officer of Grant County.

Dr. Arthur W. Records, of Franklin, has been re-elected president of the Johnson County Tuberculosis Association.

Dr. John Francis Ling, of Hebron, and Miss Mildred Thomas, of Madison, were married February first, at Madison.

Dr. F. W. Oliphant, of Mount Vernon, has been appointed jail and infirmary physician.

Dr. C. B. McCord, of Veedersburg, has been appointed health officer of Fountain County.

Dr. Horace E. Jones, of Anderson, and Miss Patricia Harden, of St. Louis, were married January thirtieth, at St. Louis.

Dr. E. R. Clarke, of Kokomo, has been appointed health commissioner of Howard County, to succeed Dr. W. J. Marshall, who has moved from the city.

Dr. Norman F. Peacock, of Crawfordsville, lieutenant in the Medical Corps, and Miss Margaret Weakley, of Fort Thomas, Kentucky, were married Saturday, January 10, 1942, in Fort Thomas.



Recent dispatches from Corregidor state that Colonel James W. Duckworth, a native of Martinsville and a graduate of Indiana University School of Medicine, is now in charge of the medical forces at Bataan Field Hospital No. 1. In World War I Colonel Duckworth was in charge of a medical receiving station in France. At the close of the war he was sent to the Philippines, where he was

attached to the Fort William McKinley Hospital. Since then he has seen service in the United States, and in 1940 was returned to the Philippines as departmental surgeon in the Government hospital at Manila.

Dr. Charles F. Abell, of Marion, has been appointed city health officer.

Dr. J. L. Saunders, of Newport, has been appointed to serve as physician for Vermillion County.

Dr. William E. Jenkinson, of Mount Vernon, has been appointed health commissioner of Posey County.

Dr. William B. Adams, formerly of Indianapolis, has been appointed anesthetist on the staff of the Ball Memorial Hospital at Muncie.

Dr. Simeon Lambright, of Covington, was reappointed physician for the Fountain County infirmary and jail.

Dr. William Robert Tipton, of Greencastle, has been appointed county health commissioner of Putnam County.

Dr. Karl T. Brown, of Muncie, was recently elected president of the Aero Medical Association of the United States. The headquarters of the association are in Washington, but Dr. Brown will discharge his duties from his Muncie office.

Dr. J. M. Hundley, a graduate of the Indiana University School of Medicine, and formerly in public health work in Washington, D.C., has been appointed director for District Eight of the Indiana State Board of Health. This district includes LaPorte, Starke and Porter counties.

Dr. Julian W. Zinn, a life member of the North Central Illinois Medical Association, and surgeon for the Illinois Central Railroad, has been elected medical director of the Mudlavia Sanitarium.

Dr. Harley F. Flannigan, of Lagrange, has been appointed health commissioner for Lagrange County for a four-year term; also county physician for one year.

Dr. George W. Wagoner, of Burrows, has been appointed coroner of Carroll County, to fill the vacancy caused by the resignation of Dr. Hubert Gros, who is now a captain in the Medical Corps of the United States Army at Camp Perry, Ohio.

Dr. John D. Winebrenner, of Princeton, has been appointed by Dr. John W. Ferree as director of the newly created District Health Department Five, at Columbus. The new district will service Bartholomew, Johnson, Shelby, Jackson and Decatur counties.

Dr. W. T. Lawson, of Danville, was honored at the Secretaries' Conference at the Indianapolis Athletic Club, Sunday, January twenty-fifth. Dr. Lawson is the oldest secretary of a county medical society in Indiana. He is ninety-two years old and has been secretary of the Hendricks County Medical Society for the past sixty-three years. He also is health officer of Hendricks County.

AMERICAN PSYCHIATRIC ASSOCIATION INSTITUTE ON POSTGRADUATE PSYCHIATRIC EDUCATION

The Fifth Institute on Postgraduate Psychiatric Education will be held at the Missouri State Hospital, St. Joseph, Missouri, March 23 to April 4. This is under the auspices of the American Psychiatric Association Committee on Psychiatry in Medical Education. This Institute is free to all physicians, and a special invitation is extended to those in military service.

A meeting of the Indiana Association of the History of Medicine was held in the Stephen Foster Memorial at the J. K. Lilly estate north of Indianapolis on February twentieth. The president, Dr. M. H. Mothersill of Indianapolis, presided. Mrs. Anthony J. Russo, of the Indiana State Library, presented a paper on "Indiana's Medical Literature," and a paper entitled "History of the Library of the Indiana University School of Dentistry," prepared by Mrs. Mabel Walker, librarian of the Indiana University School of Dentistry, was read by Dr. H. B. Morrow of Indianapolis. The following officers were elected for the ensuing year: President, Edwin N. Kime, M.D., of Indianapolis; vice-president, Mrs. Anthony J. Russo, of Indianapolis; and secretary-treasurer, Mrs. Mabel Walker, of Indianapolis.

CHICAGO SELECTED FOR 1942 CLINICAL CONGRESS OF THE AMERICAN COLLEGE OF SURGEONS

Because of the war, the thirty-second annual Clinical Congress of the American College of Surgeons will be held in Chicago, October 19 to 23, instead of in Los Angeles as originally planned.

Headquarters will be at the Stevens Hotel. The twenty-fifth annual Hospital Standardization Conference sponsored by the College will be held simultaneously. The programs of both meetings will be based chiefly on wartime activities as they affect surgeons and hospital personnel in military and civilian service.

AMERICAN CONGRESS ON OBSTETRICS AND GYNECOLOGY

The second American Congress on Obstetrics and Gynecology will be held at the Municipal Auditorium, St. Louis, Missouri, April 6-10, 1942. At the general sessions, as well as individual group meetings, the problems of maternal and infant care from the viewpoint of the physician, the nurse, the institutional executive, the medical educator and the public health worker will be discussed. Information and application blanks may be obtained from the Office of the Congress, 650 Rush Street, Chicago.

ORTHOPEDIC MECHANIC POSITIONS OPEN IN GOVERNMENT SERVICE

An examination has been announced by the Federal Civil Service Commission to secure Orthopedic Mechanics for the Army services. The salary is $2,000 a year. Persons may qualify under the following optional subjects: (1) General, (2) Bracemaker, (3) Shoemaker and Leatherworker, and (4) Limbmaker. Because of the demand for qualified eligibles, applications will be accepted at the Civil Service Commission's Washington office until further public notice.

Examination announcements and application forms may be obtained at first- and second-class post offices and from the Civil Service Commission, Washington, D. C.

POSTGRADUATE COURSE IN OBSTETRICS AT INDIANA UNIVERSITY MEDICAL CENTER

A two weeks' Postgraduate Course in Obstetrics is being offered at the Indiana University Medical Center during the period from April 13 to April 25, inclusive. Facilities are available for the accommodation of six physicians, to be in residence at the Medical Center during the course. A registration fee of $10.00 is required, and will be refunded on the satisfactory completion of the course. There is no other charge, board and room being furnished at no cost to the physician. Any interested physicians in the state are asked to make immediate application either to the Department of Postgraduate Education, Indiana University School of Medicine, Indianapolis; or to Dr. Carl P. Huber, Associate Professor of Obstetrics, Coleman Hospital, Indianapolis.

PHYSICIANS NEEDED IN PANAMA CANAL ZONE

Physicians are urgently needed at the Panama Canal—one of the nation's most vital defense areas. There is a splendid opportunity here for doctors to assist their country during the present emergency.

The United States Civil Service Commission has just announced an examination to secure physicians for these important positions. The entrance salary is $4,000 a year, and free transportation by boat or plane is furnished from port of embarkation, the salary beginning on the date of departure from the United States. Applications will be accepted by the Commission in Washington, D. C., until further notice. There is no written test.

Further information is given in the announcements which may be obtained, with application forms, at any first- or second-class post office, or from the U. S. Civil Service Commission, Washington, D. C.

PRE-MEDICAL AND MEDICAL STUDENTS

Opportunity for Appointments as Ensigns in Class H-V(P), United States Naval Reserve

The Secretary of the Navy recently approved a change in Navy regulations whereby it is now possible for those pre-medical students who have been accepted for entrance to, and all medical students in, Class "A" medical colleges, to be appointed in the United States Naval Reserve in Class H-V(P), provided they meet the physical and other requirements for such appointment.

Students who are acceptable will be given provisional commissions as Ensigns, and it is the policy of the Bureau of Medicine and Surgery not to nominate such officers for active duty until after they have completed their prescribed medical studies and shall have served one year's satisfactory internship in a civilian hospital accredited for intern training, or shall have been accepted as Acting Assistant Surgeon in the Navy for intern training.

Upon graduation, and when the bureau has been informed of this fact by the Dean, commissions as Lieutenant (junior grade) MC-V(G), USNR, will be issued to provisional Ensigns and, after serving their internship in non-naval hospitals, they will be nominated for active duty. Application for, or acceptance of, either a provisional or permanent commission in the Naval Reserve does not preclude the possibility of applying for a commission in the Medical Corps of the regular Navy. Persons affiliated with the Naval Reserve are not subject to induction into Army service by action of local Selective Service Boards.

Navy regulations require that all applications for appointments in the Naval Reserve be filed with the Commandant of the Naval District in which the applicant resides. The address of the Commandant of your district may be obtained from the Dean of your college.

Application forms may be obtained from the Dean's office or from someone designated by him, upon request from the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.,

or from the Commandant of your Naval District. When your application form has been properly completed, it, together with the other credentials indicated on the application form, should be mailed to the Commandant of your Naval District. He will instruct you relative to obtaining a physical examination, finger prints, etc.

In the case of a pre-medical student, it is necessary to enclose with the application for appointment a statement, signed by the Dean of a medical college, to the effect that he has been accepted as a first year medical student in a Class "A" school for the next entering class.

AMERICAN COLLEGE OF SURGEONS ANNOUNCES WAR SESSIONS

The United States Army, the United States Navy, and the United States Office of Civilian Defense will co-operate with the American College of Surgeons in a series of meetings during the coming months which will bring within convenient access of physicians, surgeons, and hospital personnel in general throughout the United States, first hand opportunities for information and consultation with respect to their war duties. Surgeon General James C. Magee of the Army, Surgeon General Ross T. McIntire of the Navy, and Dr. George Baehr, Chief Medical Officer of the Office of Civilian Defense, will appoint, and in some instances they have already designated, officers to take active part on behalf of their organizations in one-day meetings, probably thirty in all, which the College will sponsor in places selected so as to permit participation of the medical and hospital professions in every state and the District of Columbia. A similar plan is contemplated to be carried out in Canada. The program for each meeting will be concentrated on medicine and surgery in military service and in civilian defense. The meetings will be open to the entire medical and hospital profession in the participating states.

In the United States, meetings are contemplated in five areas. The meetings in the first area are scheduled as follows:

AREA I

Monday, March 2—Louisville, Indiana-Kentucky, Brown Hotel.

Wednesday, March 4—Nashville, Arkansas-Tennesee, Andrew Jackson Hotel.

Friday, March 6—St. Louis, Missouri, Jefferson Hotel.

Monday, March 9—Chicago, Illinois, Stevens Hotel.

Wednesday, March 11—Detroit, Michigan, Statler Hotel.

Friday, March 13—Columbus, Ohio-West Virginia, Deshler-Wallick Hotel.

The Army will be represented at the meetings in Louisville, Nashville, and St. Louis by Brigadier General Charles C. Hillman, Chief of Professional Service Division, Office of the Surgeon General, and in Chicago, Detroit, and Columbus by Major Roger G. Prentiss, Jr., of the Medical Corps. The Navy will be represented by Captain Frederick R. Hook, Chief of the Surgical Service of the United States Naval Hospital in Washington. The United States Office of Civilian Defense will be represented by Dr. William S. Keller at the Louisville and Columbus meetings; by Dr. Judson D. Dowling in Nashville; and by Dr. John S. Coulter in St. Louis, Chicago and Detroit. The Procurement and Assignment Service will be represented by Major Sam F. Seeley, Executive Officer, or by a specially appointed delegate.

Among the speakers not in the federal services who will take part in the program in the first area are the following: Dr. Irvin Abell, Dr. R. Griswold, and Dr. Joseph E. Hamilton of Louisville; Dr. George Crile of Cleveland; Dr. George M. Curtis of Columbus; Dr. Evarts A. Graham, Dr. Vilray P. Blair and Dr. James B. Brown of St. Louis; Dr. Carl E. Badgley, Dr. Frederick A. Coller, and Dr. Max M. Peet of Ann Arbor; Dr. Grover C. Penberthy of Detroit; Dr. Willis D. Gatch of Indianapolis; Dr. Alton Ochsner, Dr. Ambrose L. Storck, and Dr. Michael L. DeBakey of New Orleans; Dr. Frederic A. Besley of Waukegan; Dr. Warren H. Cole, Dr. William R. Cubbins, Dr. Loyal Davis, Dr. Sumner L. Koch and Dr. Dallas B. Phemister of Chicago.

INDIANA UNIVERSITY NEWS NOTES

Twenty-nine internships in the Indiana University Hospitals have been granted for the year, beginning July first, it was announced this month by Dean W. D. Gatch of the Indiana University School of Medicine. Twenty-four of these have been to students who will be graduated from the Indiana University Medical School in May, and five to graduates of other medical schools.

The following members of this year's class will intern at the Indiana University Hospitals: Wallace E. Bash, Warsaw; Margaret Ann Bassett, Thorntown; Mary Helen Beall, Rushville; Pauline Detraz, Vevay; Thomas L. Dittmer, Kouts; George E. Godersky, South Bend; Lois Godersky, Flora; Jack Hall, Indianapolis; Edgar A. Hawk, New Palestine; C. Jules Heritier, Columbia City; Joe H. Jewett, Carmel; Walter Jones, Indianapolis; Alexander Kahn, Indianapolis; James C. Katterjohn, Floyd Knobs; Forrest R. LaFollette, New Salisbury; John H. Mader, Indianapolis; John McBane, Fortville; Emile Ravdin, Evansville; James Roth, Boonville; Andrew Salm, East Gary; Theodore F. Schlaegel, Jr., Indianapolis; Maurice E. Snyder, Liberty; Helen VanVactor, Indianapolis, and Julius B. Wohlfeld, Indianapolis.

Others awarded internship are as follows: Richard K. Currier, Elmwood, Illinois, University of Chicago; Robert J. Ferris, Akron, Ohio, University of Louisville; A. Ricks Madtson, Ottawa, Kan-

sas, University of Kansas; Paul Mateicka, Milwaukee, Wisconsin, University of Wisconsin; and Fleming D. Roach, Fort Lauderdale, Florida, University of Georgia.

A group of the nation's outstanding occupational therapists, members of the Board of Directors of the National Association of Occupational Therapists, convened at the Indiana University Medical Center recently. Everett S. Elwood, of Philadelphia, executive secretary of the National Board of Medical Examiners, is president of the Association, and other officers are:

Miss Mary Taylor, Milwaukee, Wisconsin, and Miss Helen Willard, Philadelphia, vice-presidents; Mrs. Meta R. Cobb, New York City, executive secretary; and Holland Hudson, New York City, treasurer. Mr. Hudson is executive secretary of the National Tuberculosis Association.

The program included business sessions and a series of demonstrations at the James Whitcomb Riley Hospital, showing methods of treatment which have brought results in extreme cases of infantile paralysis and other diseases.

Beginning this semester, students of the Indiana University School of Medicine will grind out a normal semester's work in fourteen weeks, rather than eighteen weeks. The new arrangement, providing for three semesters a year, was included in the revision of schedules adopted recently by the Administrative Council of Indiana University.

Students will attend classes six days a week. The freshman class to be selected soon will total one hundred twenty-eight members. Except for Good Friday there will be no further vacations until July third and fourth, and no more after that until Thanksgiving. The semester starting Monday will end May tenth, and the third semester will start May twelfth and close August twenty-second. The first semester of next fall will start September third and continue until December twenty-third.

The faculty, composed principally of physicians serving part-time without pay, also will feel the impact of the program, but has given full approval, according to Dr. W. D. Gatch, dean of the school. Approval was given through the Medical Advisory Council, and members agreed to teach overtime despite additional pressure in private practice, the dean stated.

Members of the Council are: Drs. Gatch, M. J. Barry, H. F. Beckman, Raymond C. Beeler, George S. Bond, David A. Boyd, Louis Burckhardt, C. J. Clark, Clyde G. Culbertson, L. A. Ensminger, Frank Forry, John D. Garrett, Carl Habich, W. F. Hughes, Edgar F. Kiser, Daniel Layman, C. A. McCaskey, H. O. Mertz, R. M. Moore, T. B. Rice, J. W. Ricketts, J. O. Ritchey, Oscar N. Torian, and P. M. Harmon.

The Indiana University School of Dentistry has announced the establishment of a course to train dentists in artificial facial restoration, in anticipation of increased facial disfigurements because of the war. Dr. William H. Crawford, dean of the school, said the need of such a course became apparent even prior to the war, with mounting facial injuries in automobile accidents. Dr. John Mccullough, Indianapolis, will teach the course.

Society Reports

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

January 11, 1942

Roll call showed the following present: C. A. Nafe, M.D., chairman; A. M. Mitchell, M.D,; M. A. Austin, M.D.; C. H. McCaskey, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; E. M. Shanklin, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

The statements of receipts and expenditures for December for the Association committees and THE JOURNAL were approved.

Membership Report

Number of members Dec. 31, 1941	3225	(110 hon. members) (162 in service)
Number of members Dec. 31, 1940	3194	(90 hon. members)
Gain in 1941	31	
Number of members Jan. 10, 1942	876	
Number of members Jan. 10, 1941	749	
Gain over last year	127	

Treasurer's Office

Dr. Weyerbacher presented the 1941 financial statement, which was compiled by the George S. Olive and Company, certified public accountants, showing a total increase of all funds of $2,180.78 for the year.

1942 Annual Session at French Lick

Outline on arrangements received from Dr. Dillinger, general chairman on Convention arrangements.

The Executive Committee ruled that no one company could be given exclusive rights to distribute a certain product at the annual session.

Legislative, Legal and Social Security Matters

National

Bulletin received from Federal Security Administrator Paul V. McNutt regarding the federalization of the United States Employment Service brought to the attention of the committee. This federalization of the United States Employment Service does not affect unemployment compensation funds.

Organization Matters

The Executive Committee reappointed Dr. F. S. Crockett, of Lafayette, chairman of the Committee on Indiana Inter-Professional Health Council for 1942 upon the motion of Dr. Romberger, seconded by Dr. McCaskey.

Dr. E. F. Kiser of Indianapolis will be the historian of the association, but material will still be sent to Dr. J. B. Maple, who will continue as

chairman of the Committee on Necrology. It was reported to the Committee that the Bureau of Publicity took the following action at its January second meeting in regard to the historical work of the association:

> "The historian of the association appeared before the Bureau and discussed the problem of writing a medical history of Indiana and collecting material of historic medical interest. He spoke of the work being done by the Indiana Association of the History of Medicine. He spoke of the fact that in order to do the work properly one trained in historical research and in historical values should be employed by the association. The historian said that he knew of a person trained along this line who could devote part of her time to this work. He said that he could not undertake the work unless such a person were available.
>
> "Both the historian and the Bureau felt that there was real merit in undertaking the systematic collection of material and preparation of articles dealing with Indiana medical history. However, the Bureau felt that under the existing circumstances the inauguration of such a plan should be postponed for the duration of the war, after which time some definite plan could be suggested."

Letter received from the secretary of a county medical society regarding the membership of a foreign physician in that society brought to the attention of the Committee. The Committee authorized a letter stating that according to the Constitution and By-Laws of the State Medical Association each county society is the sole judge of whether or not it will take or reject any physician who applies for membership. It was suggested also that the councilor for the district might be of service in straightening out this situation.

State Board of Health

Announcement made that Dr. John Ferree had been re-appointed secretary of the State Board of Health.

Medical Economics

Report on the State Land Use Planning material received from Kansas, made by Dr. Nafe.

Request of Dr. C. Philip Fox for information from the Indiana University Hospitals brought to the attention of the Committee. The information desired from the University Hospitals has been sent by the hospitals to Dr. Fox.

Resolution passed by a county medical society in regard to the diphtheria and smallpox immunization program in that county brought to the attention of the Committee. The question arose as to whether or not the county health officers had a right to demand smallpox and diphtheria immunization. The attorney of the state medical association states that "the local Boards of Health have the power to require and enforce the vaccination of school pupils as a prerequisite or condition of their being in school, where there is an epidemic, or conditions indicate that there is reasonably anticipated an epidemic of smallpox or of diphtheria." The attorney further says that "the adoption of the requirement of vaccination should be an act of the local Board of Health where the regulation applies to a city or town and of the county health officer where it applies to a county."

Medical Relief

Dr. John S. Leffel, chairman of the Medical Relief Committee, was to make a report to the Council upon the new law governing medical aid to public assistance recipients.

The Committee was informed that medical aid plans had been set up in Grant, White and Adams counties.

Chart showing comparative fee schedules set up in six counties which have agreed to operate under the new law brought to the attention of the Committee.

Copy also received of the Knox County fee schedule and a report that "Knox County has not arrived at any conclusion as the Welfare Board presented a schedule of fees entirely out of line."

Correspondence with Dr. Robert K. Webster, secretary of the Clay County Medical Society, in regard to the situation in Clay County brought to the attention of the Committee.

Newspaper clipping of an article stating that the Howard County welfare officials had worked out a fee schedule with physicians, dentists and hospitals whereby it would be unnecessary to accept federal reimbursements on medical and surgical costs for welfare recipients brought to the attention of the Committee.

Newspaper clipping stating that the trustees of Wabash County have been notified that they will be required to take care of aged persons until the county welfare department works out a plan to handle such cases brought to the attention of the Committee. The clipping reads, "The welfare board has not decided whether it wants to accept government aid and pay money direct to pensioners for medical assistance, or reject government aid and then pay physicians when bills are presented."

Reports also received from Sullivan and Shelby counties stating that these societies had unanimously voted not to participate in the program.

Report upon Dr. Leffel's talk at Richmond, along with a letter received from Leo X. Smith, former attorney for the Township Trustees Association, brought to the attention of the Committee.

Military Preparedness

Report concerning Procurement and Assignment Service for Physicians made by the executive secretary who is serving at the request of Dr. Frank Lahey, president of the American Medical Association and chairman of the Directing Board, as consultant for the Procurement and Assignment Service. Additional report was to be made to the Council.

The rehabilitation program contemplated in con-

junction with the Selective Service System was outlined in a letter received from Captain Glen Ward Lee, medical advisor, Indiana Selective Service System. At the conclusion Dr. Lee wrote that "The Indiana Headquarters of the Selective Service System has strenuously opposed the rehabilitation program since its announcement, and even more vigorously opposed it since learning unofficially the contemplated method of handling this program. Our opposition springs from two fears: (1) that such a program might be used by certain agencies as a stepping-stone to the instigation of socialized medicine, and (2) that the fees set up in the contemplated master fee schedule would have a depressing effect upon the fee which private practitioners would be able to collect from their private patients. We believe that the government is justified in requesting that work such as laboratory tests which are required by members of the Medical Advisory Boards of the Selective Service System should be run upon a cost basis and that interpretation of such tests should be made without cost to the Federal Government as a patriotic duty of those physicians who are working in the Selective Service System. However, to place before the general public a schedule of fees drawn up upon this basis without very careful and thorough explanation to this public that such a schedule of fees was assuming that the difference between such schedule of fees and fees charged in private practice was being requested of the professions and given by the professions, would result in a demand for similar fees without profit in private practice. No explanation has ever been given as to what method would be used to secure the consent of the selectee to such an invasion of his body, which, of course, has been held to be inviolate without consent."

Report made to the Executive Committee that there is need for a physician at the Station Hospital at Fort Harrison.

Soldiers' and Sailors' Civil Relief Act No. 861, 76th Congress, Chapter 888, 3d Session, S. 4270, discussed by the Committee. This Act gives men, during the time they are in active military service, relief from the payment of certain bills. Statement concerning this Act is to be carried in THE JOURNAL of the Indiana State Medical Association.

Reserve commissions. Interns and medical students will receive commissions in the Medical Administrative Corps pending their induction into active service, which will come at the completion of their educational duties.

List of physicians physically disqualified for service and those who have resigned their commissions received from Colonel E. C. Jones, Fifth Corps Area surgeon, brought to the attention of the Committee.

Dr. Nafe spoke of the rumors that are being circulated questioning the loyalty to the United States Government of numerous members of the state association who have foreign names.

Civilian Defense

Creation of a state emergency medical service advisory committee, headed by Dr. Henry S. Leonard of Indianapolis discussed by the Committee.

Telegram received from Bartholomew County Medical Society offering complete cooperation in civilian defense.

Future Meetings

Fourth Annual Congress on Industrial Health, Chicago, January 12 to 14. Dr. C. V. Rozelle, chairman of the Committee on Industrial Health of the State Association, asked to attend this meeting.

Annual Secretaries' Conference, Indianapolis Athletic Club, Indianapolis, January 25, 1942.

United States Pharmacopoeial Convention, Cleveland, April 7, 1942.

American Medical Association meeting, Atlantic City, June 8 to 12, 1942.

Group Hospitalization and Medical Service Plans

Newspaper article stating that the Hospitalization Benefit Association had started a plan for residents of Fort Wayne reviewed by the Committee.

State Board of Medical Registration and Examination and Cult Study Committee

Rumor that a refugee physician is practicing illegally in a town in southern Indiana brought to the attention of the Committee. As yet no report has been received from the State Board of Medical Registration and Examination in regard to such a physician.

Information received that the American Federation of Physio-Therapists, a cult group, has joined the American Federation of Labor.

Correspondence in regard to the Kelsey College of Physical Therapy wanting recognition brought to the attention of the Committee. Letter from Dr. Don D. Bowers to Dr. William D. Cutter, secretary of the Council on Medical Education and Hospitals of the American Medical Association, read to the Committee.

The Journal

Exchange with the *Hawaii Medical Journal* approved by the Committee.

The Committee voted not to subscribe to *Cancer Research* for 1942.

The Committee approved the deposit of copyright fees in the office of the Library of Congress for six months or a year in advance.

Advertising rates. The Cooperative Medical Advertising Bureau has recommended that an increase be made in the advertising rates of THE JOURNAL, but that the old advertisers be given the benefit of the old rate until 1943, the new rate applying only to new contracts received in 1942. The Committee approved the proposed increased advertising rates and the above procedure in handling advertising accounts. The Committee recommended that rates for professional cards and commercial announcements remain unchanged.

Color in advertisements.

Report made that the use of color in some of

the advertisements will increase the income of THE JOURNAL approximately $20.00 per issue.

Increase in printing costs. Report made that the cost of printing THE JOURNAL in 1942 will be about 17% greater than in 1941. This increase, together with the charge for color in advertisements, makes the increase about 19%, or a total of $1,398.50 over the 1941 budget figure.

Medical Defense

Attorneys' fees and the material received from other state societies regarding this subject will be discussed at the next meeting of the Executive Committee.

There being no further business, the meeting was adjourned.

BUREAU OF PUBLICITY

November 26, 1941

Present: H. G. Hamer, M.D., chairman; F. W. Taylor, M.D., and T. A. Hendricks, executive secretary.

Guest: M. A. Austin, M.D., president-elect, Indiana State Medical Association.

Release, "'Rabbit Fever' Menace," approved for publication in Monday papers, December 1.

The Bureau approved the preparation of a release entitled "Ho'iday Hea'th" for publication in Monday papers, December 8.

Articles are being prepared for a series entitled "The Truth About Vitamins." The Bureau is to consider at a later meeting a series of articles to be prepared upon the subject of "Old Age."

Requests for speakers:

Dec. 17—Parke-Vermillion County Medical Society, Clinton. Chairman of Medical Relief Committee of State Association to speak.

Dec. 18—Henry County Medical Society, New Castle. Executive secretary to attend meeting.

Reports on meetings:

Nov. 19—League of Women Voters, Logansport. "Socialized Medicine." (40 present.)

Nov. 19—Morgan County Medical Society, Martinsville. "Medical Relief Problems" and "Military Preparedness." (15 present.)

Nov. 21—Woman's Auxiliary to the Tippecanoe County Medical Society, Lafayette. (150 present.)

The Bureau approved the letter to be sent to county auxiliary presidents prepared by the president of the Woman's Auxiliary to the Indiana State Medical Association.

The disposal of the package library material at Indiana University was again discussed by the Bureau. The secretary of the Bureau of Public Discussion, Indiana University Extension Division, writes that this material occupies about 125 feet of bookshelf space. One of the members of the Bureau is to discuss the possibility of the library at the Indiana University School of Medicine being interested in this material.

The Bureau discussed the possibility of having part of its funds used for clerical work to be done by the Historian of the State Medical Association. This is to be discussed at a later meeting.

Letter received from the Assistant Surgeon General, Division of Venereal Diseases, in regard to the new film that has been prepared upon syphilis for "the medical and public health professions." The Secretary of the State Board of Health has indicated that the State Board probably will obtain this film, and it will be available for use by the physicians of the state.

The Bureau discussed the possibility of clarifying and modernizing the rules in regard to broadcasting, which were laid down by the Bureau in 1929. Final action will be taken and recommendation made at a subsequent meeting of the Bureau.

There being no further business the meeting was adjourned.

BUREAU OF PUBLICITY

December 12, 1941.

Present: H. G. Hamer, M.D., chairman; F. W. Taylor, M.D., and T. A. Hendricks, executive secretary.

Release, "Holiday Health and the War," approved for publication in Monday papers, December 22.

Report on medical meeting:

Dec. 11—LaPorte County Medical Society, LaPorte. Christmas meeting. Brief greetings from the State Medical Association.

The following letter was received from the Program Chairman of the Woman's Auxiliary in regard to the compilation of medical histories in the various counties:

"Pursuant to the Auxiliary's plan to compile histories of doctors who have practiced in the various counties, questions are coming to me asking for sources of information. These are the ones I can suggest, just out of my own small mind:

1. Records in County Clerks' offices of physicians who obtained licenses in 1897.
2. Old county histories.
3. Church, cemetery records.
4. Wills, deeds.
5. The rather modern archives of county medical societies.

"Is there a book or are there books of any authentic histories in the archives of the State Association?

"How may data from these be obtained?

"Are there any records available from the State Library?"

The answer on behalf of the Bureau follows:

"I know that the Bureau of Publicity will be most pleased to receive your letter of December seventh in regard to your suggestion as to how the Woman's Auxiliary can go about compiling information for medical histories.

"Two good books on medical history in Indiana are 'Medical History of Indiana,' written by G. W. H. Kemper, M.D., in 1911, and the biographical sketch of 'Doctor William Henry Wishard,' the father of the late Doctor William N. Wishard.

"In addition to the above, Doctor Thurman B. Rice, of Indianapolis, has written a most interesting 'Biography of Doctor John N. Hurty,' who served for so many years as health officer of Indiana.

"Doctor Burton D. Myers, who is only recently retired as dean of the Indiana University School of Medicine at Bloomington, has, I understand, ready for publication a 'History of Medical Education in Indiana.'

"The Transactions of the Indiana State Medical Association, dating back to 1849, are a most interesting source of information and also the copies of THE JOURNAL of the Indiana State Medical Association, starting with its first number in 1908 and continuing up to the present time, of course, contains much interesting and worth-while information. We have a set of Transactions and all issues of THE JOURNAL here at the state office, and I believe similar sets are on file at both the library at the Indiana University School of Medicine and the medical section of the Indianapolis City Library.

"Of course there are many county medical society histories and sketches; some of them are very complete and very thorough. Doctor James B. Maple of Sullivan, Indiana, has written a history of the Sullivan County Medical Society, and Doctor Robert Smallwood of Bedford, Indiana, has written the history of the Lawrence County Medical Society.

"I will bring your letter to the attention of the Bureau of Publicity, and if the members have any other suggestions I will let you know."

The Bureau suggests further that perhaps the Woman's Auxiliary can be of aid to the historian of the Indiana State Medical Association in compiling data. The historian of the State Association is to be asked to attend the next meeting of the Bureau to discuss this matter.

A bulletin was sent to the county medical society secretaries concerning the disposal of package library material at Indiana University.

The clarification of broadcasting rules is to be discussed further at the next meeting of the Bureau.

The following letter, received from the Tippecanoe County Medical Society, was brought to the attention of the Bureau:

"The Tippecanoe County Medical Society has an unusual opportunity to do something worthwhile in cooperation with our local daily paper, *The Lafayette Journal Courier*. It consists of this: The publisher is very anxious for the Tippecanoe County Medical Society to cooperate and have published in the local *Journal*, once per week, an article on medical affairs, either written by or sponsored by the Society and published over our name. It appears to me that this is a unique opportunity which we should not overlook and our society's Executive Committee has appointed me as a committee of one to investigate as to how much help and cooperation we could get toward this end from our state headquarters. We rather thought that some, or all, the weekly releases which headquarters has been sending to newspapers could be used as source material, and I am writing to find out whether you could make these available to us for the purpose above mentioned."

The answer to this letter follows:

"You may be sure that the Bureau of Publicity of the Indiana State Medical Association will be most pleased to hear of the fact that *The Lafayette Journal Courier* is interested in receiving articles on medical affairs sponsored by the Tippecanoe County Medical Society. I will bring your letter of December first to the attention of the Bureau at its next regular meeting on December twelfth.

"As similar programs have been carried on by the Lake, Vigo, St. Joseph and Marshall County Medical Societies, I am taking the liberty of sending a copy of your letter to the secretaries of these societies, asking each of them to send you any information in regard to such programs which might be helpful to you.

"As the chief source of all this material is the Bureau of Health Education of the American Medical Association, I also am sending a copy of your letter to Doctor W. W. Bauer, director of the bureau.

"Of course, you are welcome to any of the releases which come from the Bureau of Publicity.

"Why do you not plan on attending the next meeting of the Bureau on December twelfth? The meeting will be held at the headquarters office."

INDIANA STATE MEDICAL ASSOCIATION

COMMITTEE ON INDUSTRIAL HEALTH

C. V. ROZELLE, M.D. (Anderson). I attended the Fourth Annual Congress on Industrial Health in Chicago last week, where they had a very well-planned meeting and a program that was highly instructive. I went up with a little misgiving, as I thought perhaps our program here had been a little weak and we had not been able to give the time to it that was necessary, but after hearing the program up there I think we may say with some pride that this state has one of the most far-reaching programs for industrial health that has been set up in the entire nation. Last year Indiana was the first state medical association to adopt and set forth a definite industrial health program. This

has been acknowledged, and as I reported at the state meeting, our objective now is to put the program into effect. I think that with very little effort Indiana can be made still more outstanding in this matter.

How can we put this program into effect? By organizing our county committees. Each county secretary here should see to it that a committee on industrial health is appointed, with a chairman who is active in this work and will give some time to it. The name of the chairman and the personnel of the committee should be made known to Dr. C. M. Peterson, who is with the American Medical Association in Chicago. This committee should report industrial diseases and poisons to the State Board on Industrial Health so they may be classified and recorded, and in any case where help is needed this board will help you trace down the sources of infection or poisoning and eliminate them. With the rapid advance in industry, there are a number of new chemicals and operations brought into the field with which few are familiar. Quite a number of these have been traced down and eliminated through the co-operation of the State Board on Industrial Health.

The health of America will determine this nation's role in war in the future. This war will be won or lost on the assembly line. This is so important that the sick who are absent from industry will probably have to be classified as casualties. It is equally as important that the man on the assembly line should not leave his job as it is that the man at the front should not lay down his gun and take time out for a smoke. It is estimated that ten per cent of all employes will lose at least thirty-five days due to sickness or accident. Women lose about twice as much time as men, and the fact that women will rapidly replace men in industry will cause an increased loss of time from this factor alone—probably sixteen to twenty per cent. Due to the fact that only about fifteen per cent of manufacturers have full-time physicians will mean that eighty-five per cent of this burden will fall on the shoulders of the general practitioner who must assume responsibility for the health of these workers. It is a big job for the medical profession, and entails enormous responsibility. But we have accepted this responsibility and it is up to us to see that it is fulfilled. It is not the responsibility of a federal bureau; it is the responsibility of the medical profession as a whole, and if these committees function properly and do their work as it should be done in carrying out this program, the Federal Government will not be obliged to ask Civilian Defense to take it over and do our work for us. Remember, organized medicine has a stake in this emergency. It is, therefore, up to us to impress these workers with the importance of being on the job every hour and every day. This has been neglected, and the public has failed to realize it. The public must be educated as to the importance of carrying out this program. Even men with physical limitations can be placed in various occupations in industry where they can do some type of work. If they are not able to stand at a machine, they may do some kind of work which will not require them to stand. The important point is to have the man on a job which he is physically as well as technically qualified to do.

The keynote of public health is the safety, the efficiency, and the health of the worker. Industry has for the most part had part-time physicians. But this field has so rapidly expanded to cover working conditions that it has been very little exploited and now opens up enormous opportunities for the medical profession as a whole. It is a vast field. In view of that we have incorporated in the curriculum of our medical school certain phases of industrial health and industrial medicine. The Federal Government is asking for more and more men to take up this field of work. This program will not stop with the emergency, but will go on when industry turns from the sword to the plowshare. By doing our present job well, we shall be better prepared to do the bigger tasks which surely lie ahead.

COUNTY SOCIETIES

COUNTY MEDICAL SOCIETY OFFICERS

(Numerous reports were published in the January and February issues; these additional reports have been received since publication of those issues.)

CLARK COUNTY MEDICAL SOCIETY:
President, W. Marshall Varble, Jeffersonville.
Secretary-Treasurer, E. P. Buckley, Jeffersonville.

DECATUR COUNTY MEDICAL SOCIETY:
President, W. C. Callaghan, Greensburg.
Vice-President, J. T. Morrison, Greensburg.
Secretary, Charles F. Overpeck, Greensburg.

JACKSON COUNTY MEDICAL SOCIETY:
President, Harold E. Miller, Seymour.
Vice-President, Wilbur H. Shortridge, Seymour.
Secretary-Treasurer, George H. Kamman, Seymour.

LAGRANGE COUNTY MEDICAL SOCIETY:
President, Harry G. Erwin, LaGrange.
Vice-President, Clarence H. Schulz, LaGrange.
Secretary-Treasurer, Alfred A. Wade, Howe.

LAWRENCE COUNTY MEDICAL SOCIETY:
President, Richard P. Austin, Bedford.
Vice-President, Charles B. Emery, Bedford.
Secretary-Treasurer, J. C. Dusard, Bedford.

MIAMI COUNTY MEDICAL SOCIETY:
President, F. R. Mallott, Converse.
Vice-President, H. E. Line, Chili.
Secretary-Treasurer, R. E. Barnett, Peru.

ORANGE COUNTY MEDICAL SOCIETY:
President, John K. Spears, Paoli.
Vice-President, Keith Hammond, Paoli.
Secretary-Treasurer, George Dillinger, French Lick.

LOCAL SOCIETY REPORTS

Adams County Medical Society members held a meeting at the Elk's Home at Decatur on February sixth. Dr. Lewis Harshman, of Fort Wayne, was the speaker of the evening.

* * *

Boone County Medical Society members held a meeting at the Witham Hospital, Lebanon, on January sixth. Seventeen members were present.

* * *

Clay County Medical Society members met at Huff's Home in Brazil on February third. Earl T. Piercy, secretary of the Clay County Department of Public Welfare, was the speaker of the evening. Ten members were in attandance.

* * *

Clinton County Medical Society members held a meeting at Coulter Hotel, at Frankfort, on February third. Dr. C. Basil Fausset, of Indianapolis, gave a paper entitled "Thoracic Surgery." Twelve members attended the meeting.

* * *

Delaware-Blackford County Medical Society members met at Roberts Hotel, at Muncie, on January twentieth. Dr. Bruce Stocking, of Muncie, spoke on "Carcinomata of the Face and Mouth." Twenty-nine members and guests were in attendance.

* * *

Elkhart County Medical Society members held a dinner meeting at Hotel Elkhart, Elkhart, on February fifth. Dr. G. B. Patrick, of Elkhart, discussed "Statistical Review of Maternal and Fetal Mortality for Elkhart, 1931-41." Dr. Edith Potter, of the Chicago Lying-in Hospital, spoke on "Preventable Causes of Fetal and Neonatal Deaths," with comments on Elkhart statistics. Dr. M. Edward Davis, also of the Chicago Lying-in Hospital, discussed "The Diagnosis and Treatment of Hemorrhage Late in Pregnancy." Sixty members were present at the meeting.

* * *

Fayette-Franklin County Medical Society members held a meeting at the McFarlan Hotel, at Connersville, on January thirteenth. Dr. E. E. Padgett, of Indianapolis, was the speaker of the evening, his subject being "Diagnosis of Cancer." Sixteen members were present at the meeting.

At a meeting held by the Fayette-Franklin County Medical Society on February tenth, Dr. James H. Hawk, of Indianapolis, discussed "Eclampsia." Eleven members attended this meeting.

* * *

Fort Wayne (Allen County) Medical Society members held a meeting at the Chamber of Commerce Building at Fort Wayne on January twentieth. Dr. S. R. Mercer, of Fort Wayne, spoke on the subject "Lupus Erythematosus," with presentation of clinical cases. Motion pictures, in color, on "The Vitamin B Complex" also were shown.

At a meeting held on January twenty-seventh, the operation of Emergency Medical Civilian Defense was explained by Dr. H. O. Bruggeman of Fort Wayne.

On February third a meeting was held at the Chamber of Commerce Building, Dr. R. L. Kerrigan, of Michigan City, being the guest speaker. His subject was "Treatment of Hand Injuries." Forty-two members were in attendance at the meeting.

* * *

Fountain-Warren County Medical Society members met at the Mudlavia Hotel at Kramer on February fifth. Dr. George M. Brother, of the Indiana State Board of Health, spoke on "Immunization as a Defense Measure." Members of the Health Council of Fountain County were present at the meeting. Twenty-five members and guests were in attendance.

* * *

Grant County Medical Society members held their regular dinner-meeting at the New Marion Hotel on January twenty-second, with an attendance of approximately twenty-five members.

* * *

Hancock County Medical Society members met at the Cozy Hotel, at Greenfield, on January fifteenth. Dr. A. C. Corcoran, of Indianapolis, gave a review of "Hypertension." Fourteen members were present at the meeting.

Dr. John D. Hendricks, of Indianapolis, gave a talk on "Diagnostic Problems in Pediatric Urology" at a meeting held on February twelfth.

* * *

Henry County Medical Society members held a meeting at Newcastle on January fifteenth. Dr. Bert E. Ellis, of Indianapolis, spoke on "Otitis Media and Mastoiditis." Eighteen members were in attendance at this meeting.

* * *

Indianapolis (Marion County) Medical Society members held a meeting at the Indianapolis Athletic Club on January thirteenth. Case reports were presented on the following subjects: "Acrodynia in an Infant," by Dr. Herbert Call; "Unusual Skin Lesions in Diabetes Mellitus," by Dr. John Dalton; "Bronchiectasis Treated by Pneumectomy," by Dr. Wayne Carson; and "Surgical Problem," by Dr. Karl Ruddell.

At a meeting held on January twentieth Dr. Robert Masters showed colored illustrations on "Common Disease of the Eye"; Dr. T. B. Noble, Jr., discussed "Construction of Artificial Vagina"; and Dr. Henry Mertz spoke on "Anuria."

Dr. Geza De Takats, associate professor of surgery at the University of Illinois School of Medicine, was the guest speaker at a meeting held on January twenty-seventh.

On February third case reports were presented as follows: "Encephalopathy Following Continu-

ous Intravenous Arsenical Therapy," by Dr. F. G. Sheehan; "Case of Acute Pancreatitis," by Dr. Emmett B. Lamb; "Case of Eosinophilic Leukemia, with Autopsy," by Major John Potter of the Billings General Hospital; "Case of Pneumococcic Peritonitis," by Dr. O. W. Sicks; and "Case of Gastro-jejuno-colic Fistula," by Dr. Cleon Nafe.

At a meeting held on February tenth Dr. Russell Sage showed colored illustrations on "Diseases of the Tongue," Dr. Byron Rust spoke on "The Emotional Aspects of Pediatrics," and Dr. David Boyd discussed "Modern Treatment of Delirium Tremens."

* * *

Knox County Medical Society members held a dinner-meeting at the Jewel Cafe, Vincennes, on January twentieth. Dr. R. G. Moore, of Vincennes, discussed "A Case of Congenital Heart Disease"; and Dr. H. D. McCormick, of Vincennes, gave a Case Report on "Pernicious Anemia." Seventeen members were present at the meeting.

* * *

Lawrence County Medical Society members held a dinner-meeting at the Dunn Memorial Hospital on January seventh at which formal ceremonies were held for the induction of new officers, followed by a general business meeting.

* * *

Madison County Medical Society members held a joint dinner meeting with the Madison County Dental Society on January nineteenth at the Anderson Country Club. Dr. C. R. Bird, chairman, M-Day and Veterans' Affairs Committee, Indiana State Medical Association, Indianapolis, was the principal speaker of the evening.

Dr. H. H. Wheeler, of Indianapolis, talked on "Conservative Treatment of Rectal Diseases" at a meeting held on February sixteenth.

* * *

Morgan County Medical Society members met at Martinsville on January fifth for the election of officers.

Another meeting was held on January twenty-first.

* * *

The Northeastern Indiana Academy of Medicine members held a meeting at the Publix, at Kendallville, on January twenty-ninth. Dr. Donald Grillo, of South Bend, discussed "Proctology: Practical Consideration of Some Fundamentals."

* * *

Owen County Medical Society members held a regular meeting in the Medical Library at the Courthouse on January sixteenth.

* * *

Parke-Vermillion County Medical Society members held a meeting at the Vermillion County Hospital, at Clinton, on January twenty-first. George G. Fassnacht, of the Bureau of Sanitary Engineering, Indiana State Board of Health, spoke on "Health and Sanitary Problems Relative to the Defense Plant." Fourteen members and guests attended the meeting.

* * *

Pike County Medical Society members held a meeting at Dr. J. T. Kime's office, at Petersburg, on February fifth, with six members in attendance.

* * *

Posey County Medical Society members met on Sunday afternoon, January eleventh, in New Harmony. Officers were elected for the ensuing year and a health program for the county was formulated.

* * *

Putnam County Medical Society members held their regular monthly dinner meeting at the Putnam County Hospital on January eighth. Virgil Sheppard, director, Division of Public Assistance, Indiana State Department of Public Welfare, was the principal speaker.

* * *

Randolph County Medical Society members held a meeting at the Randolph County Hospital on January twelfth. Dr. L. G. Montgomery, of Muncie, spoke on "Nomenclature of Death Certificates"; and Dr. J. S. Robison, of Winchester, talked on "The State of the Nation."

Dr. A. B. Richter, of Indianapolis, gave a talk on "Hypertension" at a meeting held on February ninth.

* * *

Shelby County Medical Society members held a meeting on January sixteenth.

* * *

St. Joseph County Medical Society members held a meeting at South Bend on January twenty-first. Dr. H. M. Trusler, of Indianapolis, discussed the latest developments in the technique of treating burns.

Another meeting was held on February third, at which Captain Glen Ward Lee, medical advisor of the Indiana Selective Service System, Indianapolis, and Dr. Carl S. Culbertson, of South Bend, were the speakers of the evening.

* * *

Sullivan County Medical Society members met at the Mary Sherman Hospital, at Sullivan, on February fourth. Dr. E. O. Nay, of Terre Haute, gave a paper entitled "Obstructive Prostate." Twelve members attended the meeting.

* * *

Tippecanoe County Medical Society members held a meeting on February tenth in the Lincoln Lodge, at Lafayette. Dr. Franklin B. Peck, of Indianapolis, spoke on "Diabetes Mellitus." Forty-one members were in attendance at this meeting.

* * *

Tri-County Medical Society members held a meeting at Dewey's Cafe, at Washington, on January twenty-seventh. Dr. D. C. Hines, of Indianapolis, was the principal speaker of the evening.

Wabash County Medical Society members held their monthly meeting at the Sheller Hotel, in North Manchester, on January fourteenth. The need for medical officers in the armed forces was discussed.

* * *

Whitley County Medical Society members met at Columbia City on January thirteenth for a dinner meeting. The principal speaker of the evening was Dr. Ernest Carlo, of Fort Wayne, whose subject was "Effects of War on Child Health." Ten members were present at the meeting.

WOMAN'S AUXILIARY

President—Mrs. Ernest O. Nay, Terre Haute.
President-Elect—Mrs. Arnold Duemling, Fort Wayne.
Corresponding Secretary—Mrs. Don M. Mattox, Terre Haute.
Treasurer—Mrs. T. R. Hayes, Muncie.

It is time for each person responsible for annual reports to be collecting the necessary material. Mrs. W. E. Tinney, State Bulletin chairman, urges everyone to get in her Bulletin subscription now. Due to illness in her family, she has been unable to keep up the correspondence.

Haddon Hall will be the headquarters for the Annual Meeting of the Woman's Auxiliary to the American Medical Association, which will be held in Atlantic City, New Jersey, June 8-12, 1942. Requests for reservations should be sent immediately to Haddon Hall, Atlantic City, New Jersey. Auxiliary members desiring reservations at the Auxiliary Headquarters should make such request in their applications, stating that they are members of the auxiliary.

The following is the study outline which the Marion County Medical Auxiliary is using for their study group meetings every other Thursday.

The first meeting:

Thumb-nail History of Medicine.
Development of the Art and Science of Medical Practice.
Early Medical Education in the United States.
Development of Higher Standards of Medical Schools, Hospitals, and Individual Qualifications for Practice.
a. By legislative action.
b. By voluntary action.
c. Influence of professional organizations.

Second and third meetings:

Medical Practice in the United States.
1. Private practice.
   a. Extent and advantages.
2. Contract practice.
   a. Extent, advantages and disadvantages.
3. Group practice.
   a. Define and give examples.
   b. Theoretical advantages and disadvantages.
4. Practice in medical cooperatives.
   a. Describe and discuss at least one example.
5. Institutional practice.

Fourth meeting:

Public Health Services in the United States Today.
a. Public health a changing concept.
b. Local, State, and Federal activity and responsibility.

Fifth and sixth meetings:

Medical Practice in Certain European Countries.
England, Germany, Russia.
Scandinavian countries.

Seventh and eighth meetings:

Problems of Medical Care for the Indigent and "Medically Indigent" and Limited Income Groups.
a. Size of the problems.
b. What is adequate.
c. Survey.
   Committee on the Costs of Medical Care.
   National health survey.
   A.M.A. studies.
d. Advantages and disadvantages for these groups in:
   Voluntary insurance.
   Compulsory insurance.
   Hospital insurance.
e. Need for experimentation in developing plans.
f. State and local projects.
   Medical and Dental Credit Bureau.
   Governmental agencies active in the field.

COUNTY NEWS

Lake County Auxiliary has decided to do Red Cross sewing every other Tuesday in the various homes, with two members acting as hostesses. These meetings seem to be doing a great deal to further acquaintanceship among physicians families and to increase unity and fellowship.

A business meeting was held by the Auxiliary to the LaPorte Medical Society before the evening program of the physicians' group on January fifteenth. The combined group was addressed by Mr. E. R. Wesphal on the subject "Civilian Defense."

Miss Mary Sinclair, assistant director of Woman's Activities for the Indiana Defense Council, talked on "Women in Defense" before the Marion County Auxiliary in January.

Wayside Inn, Valparaiso, was the meeting place for the Porter County Medical Auxiliary on January twenty-seventh, at which time Mrs. G. R. Douglas talked on "The Philippines." In February the special project was "sewing for the hospital."

"Problems of Peace" was the subject of Dr. Frank R. Hall, of the Purdue History Department, at the January meeting of the Tippecanoe County Medical Society.

Vigo County Auxiliary has had two interesting meetings. In January the annual guest dinner of

the auxiliary was held in the Student Union Building of the State Teachers College. Dr. Hazel Pfennig gave an interesting talk on her trip to South America. In the first week of February Dr. W. W. Bauer told a group of four hundred women how to protect the health of the nation during war times in his lecture on "Women and the Nation's Health," given at the Student Union Building of the Teachers College. The lecture was sponsored by the Auxiliary. Dr. Bauer spoke in the morning to the high school students of the city, and at noon he was the speaker at a luncheon meeting of the service clubs as guest of the Junior Chamber of Commerce.

RED CROSS SHIFTS FIRST AID INSTRUCTORS TO WEST COAST

Because the threat of possible air attacks on the Pacific Coast has resulted in a tremendous demand on Red Cross chapters for first aid instruction, the American Red Cross has shifted twenty experienced first aid field representatives to San Francisco. Immediately upon arrival, the latter part of December, these representatives were dispersed to strategic points and set to work on a program of training lay instructors in first aid throughout the Pacific Coast states.

The lay instructor's course covers a period of forty-five hours of class work and practical application of first aid. For those who already hold Red Cross standard and advanced first aid certificates, this period is reduced to fifteen hours. All those who qualify as instructors are thereupon authorized to teach both standard and advanced courses in emergency care of the injured, and Red Cross first aid certificates will be awarded to those who successfully complete these latter courses. Doctors who are graduates of recognized medical schools may receive an instructor's appointment from the Red Cross upon application to National Headquarters in Washington, D.C., or to the area headquarters in San Francisco, St. Louis and Alexandria, Virginia.

Since the attack on Hawaii, Red Cross chapters in all parts of the country have been swamped with demands for first aid instruction, Harold F. Enlows, national director of the Red Cross First Aid Service, reports. In some localities the demand has increased from five to ten times since war was declared, he asserted. The twenty representatives who were shifted to the west coast were drawn from the middle-western states, and they are being replaced as rapidly as possible.

The Red Cross now has more than thirty-five thousand first aid instructors throughout the country who are busy meeting the demands for training in their local communities. Because of the great demand for instruction, the Red Cross is constantly conducting instructor training courses throughout the East and Midwest, in addition to those in the Pacific area. During the past year upwards of one million persons received first aid training from Red Cross instructors. Of these approximately one hundred thousand were residents of states located in the Pacific area of the Red Cross: California, Oregon, Washington, Idaho, Utah, Arizona and Nevada.

First aid instruction is one of the Red Cross activities on behalf of civilian defense. During the past year local chapters have been organizing and training volunteer first aid detachments to be ready for immediate service in industrial establishments and residential areas in case of explosion, fire, sabotage or other incidents requiring the services of first aiders. Every effort is being made to protect defense industries by means of these first aid detachments. First aid instruction is also being furnished by the Red Cross to soldiers and sailors as a part of the services to the armed forces which the Red Cross provides. This work, which embraces every conceivable type of morale-building activity, both among the men in uniform as well as their families, has been greatly expanded during the past year and faces an even greater expansion in the immediate future.

Because of the heavy financial burden occasioned by its war activities, the Red Cross has appealed for a special fund of fifty million dollars. The services financed through this fund will prove to the men on whose shoulders the safety of our country now rests that the American people are solidly aligned with them in common ideals and aims.

BOOKS RECEIVED

THE BLOOD BANK AND THE TECHNIQUE AND THERAPEUTICS OF TRANSFUSIONS. By Robert A. Kilduffe, A.B., A.M., M.D., F.A.S.C.P., Director, Laboratories, Atlantic City Hospital; and Michael DeBakey, B.S., M.D., M.S., F.A.C.S., Assistant Professor of Surgery, School of Medicine, Tulane University of Louisiana. 558 pages with 214 illustrations and one color plate. Fabrikoid. Price $7.50. The C. V. Mosby Company, St. Louis, 1942.

* * * *

THE 1941 YEAR BOOK OF PATHOLOGY AND IMMUNOLOGY. Division on Pathology edited by Howard T. Karsner, M.D., Professor of Pathology, Director of the Institute of Pathology, Western Reserve University, Cleveland. Division on Immunology edited by Sanford B. Hooker, A.M., M.D., Professor of Immunology, Boston University School of Medicine. 623 pages. 136 illustrations. Fabrikoid. Price $3.00. The Year Book Publishers, Inc., Chicago, 1941.

* * * *

ENCEPHALITIS—A Clinical Study. By Josephine B. Neal, A.B., M.D., Sc.D., F.A.C.P., Associate Director, Bureau of Laboratories, Department of Health, New York; Clinical Professor of Neurology, College of Physicians and Surgeons, Columbia University. 563 pages. 16 illustrations. Cloth. Price, $6.75. Grune & Stratton, Inc., New York City, 1942.

* * * *

BOOKS REVIEWED

SYNOPSIS OF GENITOURINARY DISEASES. By Austin I. Dodson, M.D., F.A.C.S., Professor of Genitourinary Surgery, Medical College of Virginia; Urologist to St. Elizabeth's Hospital and St. Luke's Hospital. Third Edition. 302 pages with 112 illustrations. Fabrikoid. Price $3.50. The C. V. Mosby Company, St. Louis, 1941.

The reviewer is glad to note a new edition of *Synopsis of Genitourinary Diseases* by A. I. Dodson. This book

(Continued from page 186)

is the answer to the medical student's complaint that he cannot buy a book on urology for less than ten dollars. The price of the "Synopsis" is three and a half dollars.

This third edition of a valuable book has been brought up to date with reference to chemotherapeutic agents. Naturally, only the high spots in urology can be touched upon in a book of three hundred pages, but a surprising amount of information is contained in those pages. The illustrations, particularly the line drawings, are most helpful and well selected.

There should be a brisk demand for this book by physicians going into military service. The index is complete, and only one criticism comes to mind. The author could well add a method of giving prophylactic treatment against venereal disease. A.F.W.

* * * *

X-RAY THERAPY OF CHRONIC ARTHRITIS (Including the X-Ray Diagnosis of the Disease). By Karl Goldhamer, M.D., associate roentgenologist, St. Mary's Hospital and Quincy X-Ray and Radium Laboratories; formerly Radiologist, University of Vienna. Foreword by Harold Swanberg, M.D., editor of the Mississippi Valley Medical Journal and Radiological Review. 131 pages with 24 original illustrations by the author, two roentgenograms, and four tables. Cloth. Price $2.00. Radiologic Review Publishing Company, Quincy, Illinois, 1941.

The communication represents a preliminary report on one hundred consecutive cases of patients suffering with chronic arthritis and allied diseases. The author, formerly chief of the Roentgen Department of the First Anatomical Institute of the University of Vienna but now residing in Quincy, Illinois, treated these hundred cases. Ten chapters comprise the small volume.

Chapter I takes up the clinical and pathological aspects of chronic arthritis. Chapter II takes forty-one pages, or one-third of the volume, for the roentgenologic findings in chronic arthritis. He uses illustrations to discuss the different stages made from drawings of twenty-four roentgenograms. Chapter III takes up the differential diagnosis, this is brief and somewhat hard to interpret. Chapter IV—History of X-ray Therapy of Chronic Arthritis. Its formidable title is not borne out in this chapter. Only two European references and two American references are mentioned. · Chapter V—How Do X-rays Act in Chronic Arthritis? The author concludes (without proof) that roentgen rays help the arthritic patient by producing "actively hyperemic stimuli," that is, because of capillary vasodilatation, "cessation of the nutritional disturbances in the diseased joint may be assumed." Chapter VI takes up the roentgen therapy that the author recommends. In doing this, he is so certain of the value of roentgen therapy that he advises (page 89), "Prophylactic roentgen ray treatment for those cases that show signs on the roentgenogram but have no clinical symptoms." This, it seems, would take all cases over fifty years of age and reap a harvest for the radiologist. Chapter VII—Here we see a variation of the dosage, but generally his doses are too heavy and carried out over too long a time. Kahlmater in his chapter in the book *Chronic Rheumatic Disease,* published by the Royal College of Physicians, does not give over two hundred roentgens in a single dose, giving only two or three doses in a series, with intervals of two to three days between doses. Chapters VIII and IX take up the results of the hundred cases. He is overenthusiastic with his results. Gonorrheal arthritis is perhaps the best indication for roentgen treatment, but he does not include any data thereon. Chapter X—The summary of results and conclusions. This sounds good, but again we can see overpraise and overenthusiasm. Even though his volume may serve as a useful introduction to the subject, it will stimulate better study. There is much to be done in improving the technic of treating arthritis. Most radiologists will admit that the roentgen rays have their place in the treatment of chronic arthritis. R.C.B.

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"To my mind, your protection as well as courtesy in times of stress incurred in a malpractice suit is the greatest consolation that any practicing doctor can enjoy. Were it not for you, well I just don't know what would have happened to me."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.
ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique with practice on living tissue, every two weeks throughout the year. General Courses one, two, three and six months; Clinical Courses; Special Courses. Rectal Surgery every week.

MEDICINE—Two Weeks Intensive Course will be offered starting June 1st. Two Weeks Course in Gastro-Enterology will be offered starting June 15th. One Month Course in Electrocardiography and Heart Disease every month, except December and August.

FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting May 4th. Informal Course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting April 6th. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting April 20th. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting April 6th. Clinical and Special Courses starting every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting April 20th. Five Weeks Course in Refraction Methods starting May 11th. Informal Course every week.

ROENTGENOLOGY—Courses in X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore St., Chicago, Ill.

THE 1941 YEAR BOOK OF PUBLIC HEALTH. Edited by J. C. Geiger, M.D., Dr.P.H., Director of Public Health, City and County of San Francisco; Clinical Professor of Epidemiology, University of California; Clinical Professor of Preventive Medicine and Public Health, Stanford University School of Medicine. 544 pages. Fabrikoid. Price $3.00. The Year Book Publishers, Inc., Chicago, 1941.

It would be hard to see how it would be possible to pack into one small book more information than is contained in the *Year Book of Public Health for 1941*. We recommend it very highly indeed for anyone who would like to get a comprehensive view of the accomplishments of public health in that year.

Literally hundreds of important articles have been reviewed. The table of contents will give some idea of the scope of the work. We shall merely enumerate the general headings: Administration—Medical Care, Child Hygiene, Communicable Diseases and Epidemiology, Dental Hygiene, Food and Milk, Health Education, Hospital Hygiene, Housing, Industrial Hygiene, Laboratory, Maternal Care, Mental Hygiene, Military Hygiene, Nursing, Nutrition, and Statistics.

In glancing through the volume for topics for special reference, we found so many that it was impossible to mention any except one, and that one is included herein because it has a particular significance to Indiana. It is a discussion of the Mazzini Serum Reaction for Syphilis and is very complimentary to that test. We in Indiana are very proud of Mr. Mazzini and his work with serological tests for syphilis.

By all means read this book if the opportunity presents itself. T.B.R.

* * * *

ESSENTIALS OF ENDOCRINOLOGY. By Arthur Grollman, Ph.D., M.D., Associate Professor of Pharmacology and Experimental Therapeutics in the Medical School of Johns Hopkins University. Cloth. 480 pages, 74 illustrations. Price $6.00. J. B. Lippincott Company, Philadelphia, 1941.

The author of this book has been known for his work upon numerous laboratory subjects, especially concerning the adrenal glands. In considering this book for everyday medical practice, one must take into consideration the fact that the author appears to have a far more thorough acquaintance with the laboratory than with the clinic. As many have indicated, while animal experimentation is most desirable and should be carried on with the utmost diligence and application, nevertheless, the results obtained should be applied to the human being with the greatest of care and caution. No amount of knowledge of animal physiology and anatomy will supplant close observation upon the human, himself.

The book is generally inclusive of all matters pertaining to functions and disorders of organs producing hormones. The sections of discussion include one on the general aspects, then treatments of organs or organ groups, including those of the buccal cavity, of bronchiogenic origin, of the abdominal cavity, of the reproductive system and of those generally considered nonendocrine. Each section has considerable material devoted to anatomic, gross and microscopic; embryologic; physiologic and pathologic aspects of the organ concerned. While this makes interesting, if not delightful, reading, the busy physician may find it too time-consuming in trying to find out a few essential facts which he wants to know. The book contains adequate clinical discussion and illustrations to amplify descriptions. One wonders if much of what is described is not of advanced cases, easily recognized with the naked eye, and not applicable to cases in their early stage. Treatment is indicated for most conditions, but it seems so simple and straightforward as to leave the impression that these conditions can be straightened out more easily than is actually the case. For example, the section on the treatment of diabetes does not compare with that found in books such as those of Joslin or Wilder, both of which are based upon an immense and personal clinical experience.

Endocrinology is still one of the "wonderlands" of medicine. The confusing claims and issues replete in over-voluminous literature merely serve to confuse the average physician; he may become so desperate as to find refuge in the mellifluous voice of the detail man. (Who would blame him?) It is quite possible that this book has done something toward de-wondering this wonderland, but the subject still remains strange and fantastic. H.B.

* * * *

WHAT'S IN A NAME?

The various ways in which the same name may be spelled is illustrated in the following communication received from the University of Minnesota Press:

"Which is the Best Seller in 28 Cities? Life of Mayo, The Brothers Mayo, The Mayo Brothers, The Doctors Mail, The Ma Doctors, Mayo Doctors, The Mayos, The Doctors Mayo.

"Who is the Author of this Important Book? Clopcsath, Clapesaute, Clapsattle, Clopsattle, Claspattle, Clapseattle, Clapesettle, Clakesattle, Clapisattle, Claptesattle, Clapesatlle, Calpesattle, Sapesattk, Chapesattle, Clspesattle, Claperattle, Clapessattle, Chapnattley, Clapsatte, Clapesatte, Claptrattle, Clappesattle, Clappsattle, Clappersattle, Clapssattlt, Chopesattle, Clapsaddle, Claysesattle, Clutesattle, Clopessette, Clapesaale, Clapesattel, Cleapsattle, Clafe, Clapsatt, Sapesattle, Clapesatte, Clapsttle, Clapesattle."

"(We've had orders for these titles by all these authors.)"

INDIANA STATE BOARD OF HEALTH
BUREAU OF COMMUNICABLE DISEASES
Monthly Report, December, 1941

Diseases	*Dec. 1941*	*Nov. 1941*	*Oct. 1941*	*Dec. 1940*	*Dec. 1939*
Tuberculosis, Arrested	5	8	3	0	0
Tuberculosis, Active	74	110	86	86	83
Chickenpox	271	325	79	459	393
Measles	86	63	16	99	30
Scarlet Fever	353	378	200	431	654
Smallpox	11	3	1	5	16
Typhoid Fever	6	12	9	10	4
Whooping Cough	92	142	44	59	196
Diphtheria	32	98	65	43	102
Influenza	116	143	72	1422	73
Pneumonia	79	52	50	75	85
Mumps	26	26	10	132	244
Poliomyelitis	3	15	9	11	2
Meningitis	2	5	1	1	5
Trachoma	1	1	0	2	0
Tularemia	67	6	0	46	40
Undulant Fever	2	4	2	6	9
Amebic Dysentery	1	0	1	0	3
Rubella	3	3	1	0	0
Vincent's Angina	1	0	0	0	0

Zemmer
OAKLAND STATION
PITTSBURGH, PA.

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc.
Guaranteed reliable potency. Our products are laboratory controlled.
Write for general price list.
Chemists to the Medical Profession IN 3-42

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 APRIL, 1942 NUMBER 4

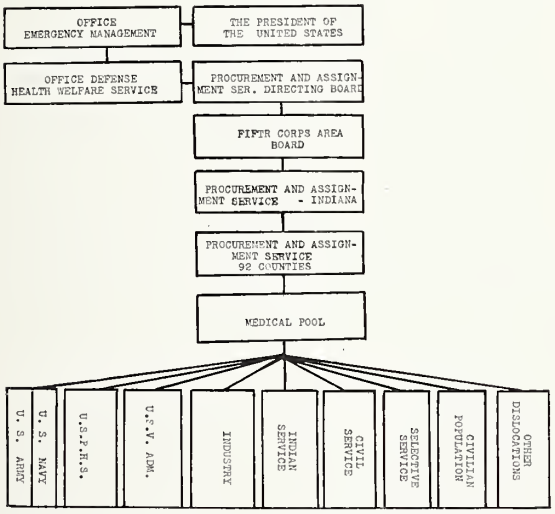
THE PROCUREMENT AND ASSIGNMENT SERVICE FOR MARION COUNTY

JOHN R. NEWCOMB, M.D.*

INDIANAPOLIS

During the past few weeks many questions have been asked concerning the Procurement and Assignment Service for Marion County, and it is with the hope that these questions may be satisfactorily answered that this report is being written.

Let us first review the set-up for the procurement and assignment of medical officers for the United States armed forces. The following diagram is self explanatory:



After looking at this diagram you will see that the Procurement and Assignment Service for Marion County is but one of ninety-two committees in the state of Indiana. Each one of these county committees is responsible to the State Committee of the Procurement and Assignment Service which, in turn, is responsible to the Fifth Corps Area Committee—this committee being responsible to the Procurement and Assignment Service Directing Board, in Washington.

* Chairman, Procurement and Assignment Service for Marion County.

The names of physicians submitted to the Procurement and Assignment Service for Marion County—to be passed upon as being available or unavailable for service with the armed forces—are selected, not by the Marion County or the state committees, but by the Directing Board of the Procurement and Assignment Service, in Washington. These names are selected by this Board from the questionnaires which you have submitted.

When this committee was first appointed there were no fixed standards or rules to guide us in the performance of our duties, therefore a meeting of this committee was called in February in order that we might discuss the questions which probably would be brought before us for decision. Committee members present at this meeting were Drs. John R. Newcomb, Olin B. Norman, Matthew Winters, J. Carlton Daniel and A. F. Weyerbacher. In addition, Drs. E. O. Asher, Charles R. Bird, E. F. Boggs, LaRue Carter, William M. Dugan and Mr. Thomas Hendricks were present, and we also had as our guest Major Glen Ward Lee of the Procurement and Assignment Division, Selective Service.

Questions which had been brought before this committee were submitted to Major Lee, and others present, for discussion, and I shall give you these questions and a resumé of the discussion, with the hope that this will clear up many of the questions that have occurred to you.

Question No. 1:

Would a physician's financial status have any influence in assigning him as being available or unavailable? For example, Dr. B. is carrying heavy life insurance, the premium for which could not be paid were he in the service. He has a $6,000 mortgage on his home, and has recently bought an automobile on which he owes several hundred dollars. What disposition should be made in this case?

Answer:

MAJOR LEE: "I will begin by saying that I am connected with the military, but cannot speak for the military. I have gone over these questions, which someone has spent considerable time in preparing, and I do not feel that I am in position to answer categorically each or any of these questions. However, I will be glad to discuss them.

"First, before going into this specific question, I would like to speak of your lack of regulations. It seems to me that you have one or two possible courses to follow at the present time. If we consider the fact that every physician under thirty-six, or forty-four now, should be considered available, that would result in approximately one-half of that group being taken, since our experience with physical examinations would indicate that only fifty per cent would pass Army physical examinations. The alternative approach to this situation is probably the most desirable, that is, to have your committee prepare immediately a written request that the Procurement and Assignment Service at national headquarters furnish you with rules and regulations whereby you shall make your determinations in each case. If they do not furnish the rules and regulations, or if they inform you that they never intend to, then I think that, for your own protection, you should formulate rules and regulations of your own, and stick to these rules and regulations. Otherwise, you will find you will be blown this way and that by public sentiment—you will make decisions one week according to one set of plans and state of mind, and the next week according to a different state of mind. And the cruel public will criticize severely."

The discussion became general, and the consensus of opinion was that the man under discussion should be classified as being available for duty, but should be granted deferment for sixty to ninety days, during which time he could make necessary adjustments in his financial status. He would, of course, be forced to drop some of his life insurance, but could retain a specific amount of it, as specified in The Soldiers' and Sailors' Civil Relief Act. This would constitute a sacrifice on this man's part, but it is one which is unavoidable. The mortgage on his home is also cared for in the Soldiers' and Sailors' Civil Relief Act. His home, so long as his family remains in it, can not be taken away from him, and there probably would be no additional carrying charge made against any amount he might be compelled to leave unpaid. So far as his automobile is concerned, the committee felt that he should dispose of it and apply the equity on the financial obligation he is facing.

Question No. 2:

Is a physician who resigned his commission in the Medical Reserve Corps, when ordered to report for physical examination to determine his fitness for extended active duty, eligible for reappointment in the Medical Corps at any time he might request reappointment? Would the Procurement and Assignment Committee be called upon to pass on him as being available or unavailable?

Answer:

MAJOR LEE: "That is a question that I think can come nearer being answered than any other question you might propose, but, unfortunately, each time I thought about it I was unable to get into the Indiana Military Headquarters. They can answer the question as to whether or not a man can be reappointed to the Medical Corps. I am unable to answer it. The question should be proposed to the headquarters of the Indiana Military Area, or to other authority which they might cite."

Inquiry was then made of the Directing Board of the Procurement and Assignment Service, in Washington.

Any man who has resigned is no longer under the jurisdiction of the Army, and if he wishes to be reinstated he should make direct application to the office of the Surgeon General, United States Army. The termination of eligibility for appointment, and the rank which he will receive, is a matter pertaining to the office of the Surgeon General, and any inquiries should be directed to that office.

Question No. 3:

What teaching position in a medical college would render a man unavailable for military duty?

Answer:

MAJOR LEE: "I will make a rather broad statement in answer to that question. It would be my opinion that only those positions for which no physician of reasonable experience could be found, would be positions the possessor of which might be unavailable."

The question was then brought up as to whether a man who had been certified by the proper authorities of that college as being indispensable to a medical college, but who was desirous of entering the Medical Corps of the Army or Navy, should be considered by this committee as being available or unavailable.

MAJOR LEE: "That hinges on a number of things. As you probably have read in the papers the last few days, we are facing the most serious questions that anybody has had to decide. One is the method of allocating the manpower we have. I think that decision should be influenced by the information which we have received from other countries, which indicates that men in service have had to be withdrawn from military service and returned to civilian positions in order that a necessary state of affairs might be maintained for national health, safety and interest. At present, I do not believe it would make any difference. I think that if a man wants to go, it would probably be a mistake to say he is not available. Personally, I cannot imagine a position in the university for which someone else could not be found—perhaps the substitute would not be as satisfac-

tory as the man now there, but I believe somebody else could assume the responsibility of any position in the medical school, if necessary. Now we have to consider the fact that as time goes on we will have to change our ideas—perhaps we should do so right now, and not answer the question as to whether a man is available or unavailable by 'yes' or 'no,' but rather say 'he is not immediately available.' We may have a lot of shifting around before we are through, but I think, purely from a psychological standpoint, that it will be advisable to answer your inquiries that way."

The general consensus was that any man who was desirous of entering the service should not be denied that privilege because of the fact that he had been certified as being indispensable to the college.

Question No. 4:

Doctor A., aged thirty-two, is married and has two children, and is the sole support of his mother and his wife's father. Would these dependents render this man unavailable for duty with the armed forces?

Answer:

MAJOR LEE: "It seems to me that if such a case came up, and he was required to show whether or not from the professional standpoint he was available, I would certify that man to the Procurement and Assignment Service. I think that would be a safe procedure, for I happen to know that they are contemplating going into 'dependency,' and not trying to classify every man under such circumstances as being available. I do not know just where they will draw the line, but I do know that a survey of the situation indicates that in order to get what the military needs, they will have to go through the group of those who are single, through the group who are married and have only a wife, and very likely go through the group who have two dependents. That is a rough estimate, but it gives you a general idea of the situation. So, if you certify that man, he probably will not be called until the situation is critical enough to warrant it. In other words, we may eventually get to the place where we will be required to certify such dislocations, even though his family should be thrown on charity. I would say either that he was available, or that he would be available if it became necessary to draw on our total manpower."

It was the opinion of the committee that such a man should be certified as being available, but with the added recommendation that he not be called until it was apparent that his dependents would be properly cared for.

Question No. 5:

Would you consider a physician who is employed by a large corporation—a man who puts in half time at the plant—as being available or unavailable for military duty?

Answer:

MAJOR LEE: "My impression is that that man should be considered available for military duty if it is reasonably conceivable that a satisfactory replacement can be found. It seems to me that today there would be no question but that a man in such a position could be replaced by somebody else."

Question No. 6:

If a physician who is employed half time by a corporation is deemed available for military duty, would the Procurement and Assignment Service be competent and able to select a successor from the list of physicians who are unavailable for military duty?

Answer:

MAJOR LEE: "I think they might be able—I think they will be able to supply any such plant with a list of the physicians who are not available for military service, and it might be tactful to point out to them that it would be to their advantage to select somebody from that group as replacement for that man. I do not believe, however, that the modern plant would be very much interested in having the Procurement and Assignment Service select a physician for them. It seems to me that they would demand the right to select the man, and I think there would be no question that the company could find a number of men over forty-four, or even fifty-five, who are still active and certainly well enough qualified to take care of the needs of the ordinary plant."

Question No. 7:

What definite circumstances would render a medical man unavailable for military duty?

Answer:

The answer to this question was brief. The only thing that would render a medical man unfit for duty with the armed forces would be his inability to pass the requirements set forth by the War and Navy Departments.

Since this meeting was held, many other questions have come up, some of which should be discussed here. A physician under thirty-six years of age, who had not sent in an answer to his questionnaire and who is subject to draft, asks for information as to what he should do.

Every physician should have sent in his questionnaire to Major Seeley. If this has not been done, he is urged to send it in at once. If he is unable to secure a questionnaire, this committee will supply one. If you have sent in your questionnaire and your draft board keeps in contact with you, obey every instruction your draft board gives you, *but* immediately wire or phone Major Glen Ward Lee, United States Army, LI. 6451, 711 N. Pennsylvania Street, Indianapolis, Indiana. Major Lee will immediately get in touch with your draft board, and you will not be drafted into military service.

The Procurement and Assignment Service for the state of Indiana has received numerous letters and telegrams, asking that certain doctors be classed as unavailable because of the fact that there is no other physician in the community. In answer to this, I quote from a letter by Doctor Charles Bird, chairman of the State Committee:

". . . . Only in exceptionally rare instances does the War Department desire that doctors under thirty-six years of age be considered as being unavailable or indispensable. The demand is great, and before another year the armed services will require the services of every available doctor in Indiana, who is of military age and who is physically eligible. . . . The time will come, shortly, when physically unfit doctors will be dislocated from their present location, when possible, and allocated to communities in distress because of lack of medical attention. We have reached the point in the international situation where convenience is no longer a factor."

I now quote from an editorial in THE JOURNAL of the Indiana State Medical Association. Doubtless many of you have read this article, but it will bear re-reading:

"The Procurement and Assignment Service already has dealt with such words as 'indispensable,' 'dependencies,' 'dislocations' and 'exemptions.' So far as this service is concerned, these four words have been deleted from the dictionaries in official Washington. It is held that no medical man is indispensable to the degree that his place cannot be filled; that even though one has dependents, one will be paid sufficient salary to properly care for these dependents. Some complain about being dislocated. Our answer to this is that several million young men from this same age group are being dislocated, just as inconveniently as would be the medical man.

"This is not a 'class' war; this is a war in which every citizen of the United States is vitally concerned; it is a war for the preservation of our Nation and the various liberties its citizens now enjoy. A statement recently was made to the effect that ere the present emergency has ended *every* physician in the country will have been called upon to do his part, and it is our opinion that when that call comes it will reach us with such force as to demand immediate response."

In closing, let it be understood that the Procurement and Assignment Service for Marion County acts solely as an agent of the Government and, although there may be very, very few individuals who we shall classify as being unavailable, we will, where sufficient cause exists, recommend the deferment of certain individuals for varying periods of time. In case you do not agree with our classification in your particular case, you have the right to appeal from our decision. This appeal should be made to the Procurement and Assignment Service for the State of Indiana. If you do not agree with their findings, you still have the right to appeal to the Fifth Corps Area Board. This committee will be very happy to answer any questions you might wish to ask.

This is an "ALL OUT" war! And "all out" means that every man is expected to do whatever the Government requests of him. The medical profession considers this as being as "all out" request. We are ready!

ADDENDA

The following blanks are used by the Procurement and Assignment Service for Marion County.

The first blank is sent to each man whose name is submitted to the committee, with the request that it be returned before the date of the next committee meeting. This blank supplies the committee with information upon which it may act intelligently and, upon being filed, gives the committee a permanent record.

In the event any physician states that he is not available for military duty, he will be notified to appear before the committee in person on a subsequent date, at which time a full discussion of the situation may be made.

The second blank is sent to the physicians who are connected with the medical school in a teaching or clinical capacity.

The third blank is sent to the firm or corporation which has a physician in its employ.

The value of having this information on file is self-evident.

BLANK No. 1

TO THE CHAIRMAN OF THE PROCUREMENT AND ASSIGNMENT SERVICE FOR MARION COUNTY

NAME: AGE:
ADDRESS:
ARE YOU MARRIED?
HOW MANY DEPENDENTS?
ARE YOU ENGAGED IN PRIVATE PRACTICE?
HOW MANY YEARS IN PRIVATE PRACTICE?
GENERAL PRACTICE OR SPECIALTY?
WHAT SPECIALTY?
DO YOU CONSIDER THAT YOU ARE AVAILABLE FOR MILITARY DUTY?
IF NOT, STATE REASONS:
ARE YOU EMPLOYED BY A MANUFACTURING CONCERN WHICH IS ENGAGED IN DEFENSE WORK?
ARE YOU EMPLOYED FULL TIME? HALF TIME?
ARE YOU INDISPENSABLE TO THIS CONCERN?
WHY?
ARE YOU IN SERVICE AS AN INTERNE IN A HOSPITAL?
NAME OF HOSPITAL:
WHEN DOES YOUR INTERNSHIP END?
ARE YOU DESIROUS OF ENTERING THE MILITARY OR NAVAL SERVICE IN THIS EMERGENCY?
ADDITIONAL MEMORANDA WHICH MIGHT AFFECT YOUR AVAILABILITY OR UNAVAILABILITY FOR MILITARY SERVICE:

DATE: SIGNATURE:

BLANK No. 2

TO THE CHAIRMAN OF THE PROCUREMENT AND ASSIGNMENT SERVICE FOR MARION COUNTY

NAME: AGE:
ADDRESS:
WHAT TEACHING POSITION DO YOU HOLD AT THE INDIANA UNIVERSITY SCHOOL OF MEDICINE?
NAMES OF OTHER PHYSICIANS IN TEACHING POSITIONS IN THE SAME DEPARTMENT:
NUMBER OF HOURS DEVOTED TO TEACHING (WEEKLY):
DO YOU CONSIDER YOURSELF AS BEING INDISPENSABLE TO THIS DEPARTMENT?
IF SO, GIVE REASONS:
WHAT CLINICAL POSITION DO YOU HOLD?
NAMES OF OTHER CLINICIANS IN THE SAME DEPARTMENT:
NUMBER OF HOURS DEVOTED TO CLINICAL WORK (WEEKLY):
DO YOU CONSIDER YOURSELF AS BEING INDISPENSABLE TO THIS DEPARTMENT?
IF SO, GIVE REASONS:
HAVE YOU BEEN REPORTED TO THE PROCUREMENT AND ASSIGNMENT SERVICE FOR THE STATE OF INDIANA AS BEING INDISPENSABLE TO YOUR DEPARTMENT?
DO YOU CONSIDER YOURSELF AVAILABLE FOR MILITARY OR NAVAL DUTY IN THE PRESENT EMERGENCY?
DO YOU DESIRE SUCH DUTY?
ADDITIONAL NOTES:

DATE: SIGNATURE:

BLANK No. 3

TO THE CHAIRMAN OF THE PROCUREMENT AND ASSIGNMENT SERVICE FOR MARION COUNTY

NAME OF PHYSICIAN EMPLOYED BY YOUR FIRM:
SIZE AND TYPE OF THIS FIRM:
ON WHAT DATE DID PHYSICIAN ENTER UPON PRESENT DUTIES?
IS HE A REGULAR EMPLOYEE? SEASONAL? TEMPORARY?
FULL TIME EMPLOYEE? HALF TIME? SUBJECT TO CALL?
GIVE AN ACCURATE AND FULL DESCRIPTION OF HIS DUTIES:
WOULD YOU EXPERIENCE DIFFICULTY IN REPLACING THIS PHYSICIAN?
WHY?
WOULD THE PHYSICIAN'S REMOVAL CAUSE A SERIOUS LOSS OF EFFECTIVENESS IN YOUR ACTIVITY?
HOW MANY OTHER PHYSICIANS OF SIMILAR SKILL OR TRAINING DO YOU EMPLOY?
IN YOUR OPINION, IS THIS PHYSICIAN AVAILABLE OR UNAVAILABLE FOR DUTY WTH THE ARMED FORCES?
IF YOU CONSIDER HIM AS BEING UNAVAILABLE, GIVE REASONS FOR THIS OPINION:
WHAT PERCENTAGE OF YOUR OUTPUT MAY BE CLASSIFIED AS BEING WAR PRODUCTION?

.....
NAME OF FIRM OR CORPORATION

.....
SIGNATURE OF PERSON MAKING THIS RETURN

.....
DATE: POSITION WITH THIS FIRM OR CORPORATION

ABSTRACT: REPORTS DRIED HUMAN PLASMA IS HELPFUL FOR HEMOPHILIA

Dried human plasma was found effective in five patients in the management of hemarthroses, hematuria and tooth extractions in patients with hemophilia, John B. Johnson, M.D., Washington, D.C., reports in *The Journal of the American Medical Association* for March 7.

He explains that in recent years several agents have been proposed in the treatment of hemophilia but that the most effective treatment still has been the transfusion of compatible blood. Certain inherent difficulties in this method limit its use practically to critical emergencies.

"For many years it has been known that the plasma of normal blood contains a substance effective in reducing the coagulation time of hemophilic blood to normal," Dr. Johnson says. "This substance has been shown to be associated with a globulin fraction of the plasma. Hitherto no practical method has been worked out by which the effective agent in plasma can be made generally available for therapeutic use."

The method reported by him involves the rapid drying of frozen plasma in a partial vacuum at a low temperature. Just before injection, the dried plasma is dissolved in a physiologic solution of sodium chloride and injected into the vein of the patient with hemophilia. He says that about one hundred injections of such plasma have been given to five patients without typing, and in only one instance was there any reaction. This consisted of a chill and a rise in temperature lasting about one hour. There was a prompt response to the injections.

"One of the most satisfying results of the type of management under discussion," Dr. Johnson says, "has been the elimination of the fear of tooth extractions in patients with hemophilia. The removal of two or more teeth on three occasions in two patients was managed by the use of plasma alone. A dose of 150 cc. of plasma reduced the coagulation time to normal. . . ."

He says that the effectiveness of this type of plasma is maintained for at least three months when it is kept at 5 C.

CANCER OF THE LARYNX— TREATMENT BY IRRADIATION AND REPORT OF CASES*

EUGENE L. BULSON, M.D.
FORT WAYNE

In recent years much important statistical data has been gathered on the incidence of cancer of the larynx, its causes and its curability. Some significant observations made from an extensive compilation of data by the Jacksons[1] emphasize the importance of laryngeal cancer and are of unusual interest. In a statistical study of twenty-seven hundred cases it was found that the incidence of cancer is increasing and that this increase is thought to be caused by the increased exposure to many kinds of irritating inhalations, including such substances as dusts of various sorts, tobacco smoke and coal tar products. Alcohol used in beverages also is believed to be a very important etiologic factor in the production of cancer of the larynx. In relation to sex, statistics show that while males are more prone to develop endolaryngeal cancer than females, in the proportion of ten to one, females, on the other hand, are much more susceptible to retrolaryngeal cancer in the proportion of seven to one. Cancer of the larynx is today a relatively common disease, and in the early stages it is curable in eighty per cent of the cases.

In a paper presented before this section by the writer seven years ago,[2] the importance of early recognition of carcinoma of the larynx was emphasized. The early symptoms, particularly the presence of a chronic persistent hoarseness, were pointed out as well as the necessity for a thorough examination by a competent laryngologist. The indications for operation and the type of operative procedure in certain specific instances were enumerated, followed by a report of two cases of carcinoma of the larynx, in one of which a laryngectomy was performed with no recurrence after several years.

Seven years ago the majority of patients with cancer of the larynx were operated, the type of operation depending on the location and extent of the cancerous growth and the degree of malignancy. Treatment with irradiation in selected cases was still in its infancy, and massive doses were just beginning to be used. Since the pioneering days great advances have been made in irradiation therapy, with such startling results that it is now an accepted form of treatment in certain types of early malignancy of the larynx. While irradiation does not supplant the various operative procedures which are still indicated in certain forms of carcinoma, the excellent results obtained in selected cases justify its use, and it is no longer necessary for every patient with malignancy of the larynx to submit to operation.

It is the purpose of this paper, in the light of recent advances in irradiation therapy, to point out which types of carcinoma of the larynx are amenable to radiation therapy and in which ones operative procedures are indicated.

There seems to exist much difference of opinion about the relative merits of irradiation and surgery in the treatment of cancer of the larynx. It should be repeated and again emphasized that success in the treatment depends upon early recognition and accurate diagnosis of the lesion, confirmed by biopsy. The important considerations to bear in mind in the selection of treatment are the location and extent of the growth, the mobility of the structures, and the degree of malignancy of the tumor. It is the consensus of opinion that lesions of the cord in the middle third and those involving the anterior two-thirds, even extending to the anterior commissure and involving the cord on the opposite side, are operable by the laryngofissure route, with a high percentage of success. Where the lesion is on the cord but has extended to the posterior end, producing impairment of mobility, or has extended below the glottis, Jackson[3] advocates total laryngectomy. While laryngectomy has been performed in the so-called "extrinsic" type in which the lesion has spread beyond the confines of the larynx, the results have been very disappointing as these cases are practically always fatal, and it is thought that irradiation would probably be as effective in arresting the growth and prolonging life.

While the majority of cancerous growths of the larynx are curable by operation, particularly when seen in the early stages, the question arises as to whether many of these cancers are radiosensitive and could be cured by irradiation. Curing the cancer is, of course, the prime consideration, but another important consideration from the patient's standpoint is the quality of the voice following operation. Regardless of the type of operation performed for the cure of cancer of the larynx, the voice is always more or less affected,[4] whereas after

* Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at Indianapolis, September 24, 1941.

[1] Jackson, C. and C. L.: Cancer of the Larynx: Its Increasing Incidence, *Arch. Otolaryn.* **33**:45-65, (Jan.) 1941.

[2] Bulson, Eugene L.: Peroral Endoscopy: An Indispensable Aid in the Early Diagnosis of Malignant Disease of the Larynx, *Jour. Indiana State Med. Assn.*, 200 (May) 1934.

[3] Jackson, C. L.: The Treatment of Cancer of the Larynx, *South. Med. Jour.*, **34**:243-254, (March) 1941.

[4] Jackson, C. L.: The Voice After Direct Laryngoscopic Operations, Laryngofissure and Laryngectomy, *Arch. Otolaryn.*, **31**:23-26, (Jan.) 1940.

treatment by irradiation the voice is least affected. Another factor to consider is that failure to cure a lesion by irradiation in a strictly operable cancer may prevent a cure by surgery later, so that the importance of deciding between irradiation and surgery is obvious.

There is great variance of opinion as to the value of the histologic structure of a tumor as a factor in determining radiosensitivity, operability, and prognosis. According to the early classification of Broders, which is based on the relationship between the surgical results and the microscopic structure of the tumors, the highly differentiated forms of carcinoma of the larynx (grades 1 and 2) yielded the best surgical results, whereas the most undifferentiated forms (grades 3 and 4) yielded the worst results. In more recent years it has been found that many of these tumors differ greatly in their radiosensitivity and radiocurability, so that efforts are being made to better correlate the microscopic structure with these factors. That the histologic structure of the lesion is of practical value in determining the course of treatment and prognosis is shared by Clerf,[5] Sir St. Clair Thomson,[6] the Jacksons,[3] Cutler[7] and others. On the other hand, many other surgeons hold the view that the microscopic structure of cancers is of little or no importance in determining the type of treatment to be followed, or in estimating radiosensitivity. Biopsy alone may be very misleading unless the histologic changes are interpreted in conjunction with the clinical and gross anatomical evidence. It also should be remembered that a single specimen may not be representative of the growth,[5] and the danger can be minimized by taking several specimens from different parts of the growth, including, if possible, some of the surrounding tissue.

A tumor is said to be radiosensitive when it can be completely sterilized by irradiation without permanent damage to the surrounding normal tissues. Radiosensitivity is dependent on the histogenic, histologic, gross anatomic and constitutional factors—any one or all of which may affect the degree of sensitivity.

According to the observations and correlation of facts presented by the gross anatomy, microscopic structure and radiosensitivity of cancers of the larynx in hundreds of cases, made by Cutler[7] and his associates, the radiosensitivity and radiocurability of these tumors depend not so much on the degree of malignancy, according to Broders' classification, as upon the location of the growth, the extent of invasion, and the mobility of the lesion and the surrounding structures.

Because of the confusion existing in the use of such terms as the so-called "extrinsic" and "intrinsic" forms of cancer of the larynx, a clinical-pathologic classification,[8] depending on the principle of histogenesis with reference to the site of origin of the tumor rather than with reference to its extension, seems to be a more accurate and logical manner of classifying these tumors. According to this conception cancer of the larynx is divided into four types: (1) lesions originating in the laryngeal vestibule, including the epiglottis and false vocal cord; (2) those originating in the ventricular cavity; (3) tumors originating on the vocal cord; and (4) lesions springing from the subglottic area.

Cutler[7] has found that the large undifferentiated carcinomas (Broders' grades 3 and 4 which are wholly unsuitable for surgery), originating in the vestibule, epiglottis and false cord, usually remain movable, and the prognosis under irradiation is much more favorable than in the case of the small infiltrating differentiated carcinomas (grades 1 and 2) which may cause complete fixation of the cord although quite limited in extent. The latter type of lesion is more amenable to surgery. In general it may be said that carcinomas arising in the false cords and epiglottis are usually undifferentiated and radiosensitive, whereas those arising in the true cords are usually differentiated—the presence or absence of invasion determining the radiosensitivity.

The following comments by Cutler[7] tend to disprove a number of generally accepted conceptions in regard to the choice of treatment of laryngeal cancer: "The presence in epidermoid carcinoma of the larynx of adult differentiated morphologic features, such as marked hornification and pearl formation in the absence of undifferentiated cellular elements, does not, as is generally supposed, necessarily indicate radioresistance. It is fully established from this and other studies that when these miscroscopic features occur in a lesion which is papillary and movable and has not invaded the underlying structures, it may be eradicated and cured by correct external irradiation without permanent damage to the normal tissues.

"If the biopsy shows a highly undifferentiated carcinoma, the radiosensitivity of the lesion may be predicted with reasonable certainty, but its radiocurability is dependent on the extent of the disease, general condition of the patient, efficiency of the treatment, and other factors of a biologic nature which are not understood.

"If biopsy shows a highly undifferentiated carcinoma interspersed with differentiated elements in the form of foci of adult hornifying squamous areas and pearl formation, the latter are not significant. This is proved by the marked radiosensi-

[5] Clerf, Louis H.: Cancer of the Larynx: An Analysis of Two Hundred and Fifty Cases, *Arch. Otolaryn.*, **32**:484-498, (Sept.) 1940.

[6] Thomson, Sir St. Clair: The Nose, Throat and Ear and Their Diseases, Chevalier Jackson and George M. Coates, Philadelphia, W. B. Saunders Company, 1929.

[7] Cutler, Max: Cancer of the Larynx: Relation between Gross Anatomy, Microscopic Structure and Radio Sensitivity, *Jour. Am. Med. Assn.*, **115**:1339-1344, (Oct. 19) 1940.

[8] Classification according to Cutler, Max; and Buschke, Franz: Cancer, Its Diagnosis and Treatment, Philadelphia, W. B. Saunders Company, 1938.

tivity and curability of a group of advanced lesions in which the biopsy showed these microscopic features."

The following patients all presented cancerous lesions of the larynx which, because of their anatomical features and site of origin, seemed to come in the classification of tumors which would respond to treatment by irradiation. The patients were referred by the essayist to Dr. Max Cutler, of Chicago, for treatment. The complete notes on admission examinations and treatment were furnished by Doctor Cutler, to whom the essayist is deeply indebted for his cooperation.

CASE REPORTS

Case 1.—A.H.K., a man aged 44, was first seen on November 10, 1937. The chief complaint was persistent hoarseness for the past two years which seemed to be getting progressively worse. There was no pain or difficulty in breathing or swallowing, and no loss of weight. Examination, x-ray of the chest, and blood Wassermann test all proved to be negative. Examination of the larynx by the indirect method showed a large tumor-like swelling in the anterior commissure just above the true cords. There was considerable thickening and induration of the false cords.

Examination on admission to the hospital, November 14, 1937, showed an ulcerated tumor mass arising in the subglottic region. The bulk of the tumor limited the motion of the left true cord, but both cords were movable over the tumor mass, the right cord being more freely movable than the left. The false cords and epiglottis were movable. A semifirm lymph node was present at the angle of the jaw at the right side, measuring 2½ x 1½ cms., probably neoplastic in character. Biopsy showed a transitional cell carcinoma.

Treatment consisted of the application of the 2-gram radium pack, at 10 cm. distance, to the right and left neck twice daily, one treatment to each area for fifty-five days. The patient was given 110,000 mghrs. to each side of the neck, or a total of 220,000 mghrs.

Indirect examination of the larynx, on January 21, 1938, following completion of the irradiation therapy, revealed complete disappearance of the tumor mass in the larynx as well as the lymph node at the angle of the jaw on the right side.

In June, 1939, one year and six months after the completion of the original treatment, the patient began to develop recurrent symptoms of hoarseness. Examination of the larynx at this time showed some swelling in the right laryngeal wall above the cords. The patient was referred for further treatment.

Examination on readmission to the hospital, July 25, 1939, revealed a tumor mass visible subglotically, occupying the site of the anterior commissure below the true cords. The tumor occupied the right anterolateral aspect of the laryngeal wall, subglottically, and arose from the mucous membrane of the inferior half of the laryngeal cartilage, extending down toward the trachea. Posteriorly, the lesion extended half way across the laryngeal vestibule.

Treatment instituted on August 1, 1939, consisted of roentgen therapy of 400 K.V. The patient received three courses of treatment of two days each, with a ten-day interval between each course. Two treatments a day were given for two days, 1,100 r. units to each side of the neck during each course. The total dose given was 6,600 r. units (measured on the skin).

Treatment resulted in complete disappearance of the lesion, and the patient has been well and free from any further recurrence for more than two years (September, 1941).

This case illustrates the complete disappearance under external irradiation of an undifferentiated transitional cell carcinoma (grades 3 and 4), which would be considered as totally unsuitable for surgery. If surgery were contemplated, the extent of involvement would undoubtedly necessitate a total laryngectomy.

Case 2.—A.A.W., a man aged 49, was first examined on November 21, 1938. The patient complained of intermittent hoarseness and an occasional dry cough for the past two and one-half years which, he claimed, came on following a severe "chest cold." Continuous treatments for the past two and one-half years have given no relief. There has been no difficulty in swallowing or breathing, and no loss in weight. A general examination, including an x-ray of the chest and a blood Wassermann, were negative. Examination of the larynx by the indirect method revealed a gray, necrotic-looking lesion on the left wall of the larynx, above and concealing the left true cord, except for its anterior fifth. Some swelling of the tissues in the region of the left arytenoid also was noted.

Examination on admission to the hospital, November 29, 1938, showed a lesion of the left false cord involving the left arytenoid at its anteromedial margin. The arytenoids and the right true and false cords were movable. The left true cord was not visualized except for a small portion of the cord at the anterior commissure. The left false cord was movable. The lesion was covered by a layer of hyperkeratotic cells and extended subglottically. Crepitation was present. No adenopathy was found. Biopsy showed a squamous cell carcinoma.

Roentgen therapy, by means of 400 K.V. to the left neck, was given from December 5 to December 9, 1938. The patient received 4,450 r. units (measured on the skin) in five days, resulting in complete disappearance of the lesion.

Examination of the larynx by the indirect method, on January 3, 1939, after the return of the patient to Fort Wayne, showed no induration of the tissues on the left laryngeal wall, and the true cords could be seen in their entire extent and were freely

movable. The patient has remained well and free from any recurrence for almost two years (September, 1941).

The type of lesion present in Case 2 is frequently cured by laryngofissure. The importance of taking into consideration not only the histologic structure but also the site of origin and the extent of invasion of the surrounding tissues is clearly illustrated. The adult differentiated squamous cell carcinoma is not necessarily radioresistant, as is generally supposed, and the site of origin—in this case the false cord—and the high degree of mobility of the surrounding structures, indicating that true invasion had not occurred, accounts for its radiosensitivity.

Case 3.—D.L., a man aged 76, was first seen on April 19, 1941. The chief complaint was that of continuous progressive hoarseness, together with difficulty and pain on swallowing, of six and one-half months' duration. There was no pain or soreness of the throat except on swallowing. The patient had some difficulty in breathing at night. There was no loss of weight. Examination of the larynx by the indirect method showed marked swelling of each laryngeal wall, above the false cords and more pronounced on the right, and encroaching on the lumen sufficiently to prevent visualization of the true cords except for the posterior end of the right cord.

Examination on admission to the hospital, April 28, 1941, showed a slight deviation of the thyroid cartilage to the right and decreased crepitation on the right side. On examination of the larynx both false cords were seen to be markedly swollen and edematous. The right false cord overlapped the left on coaptation of the cords. The right arytenoid was larger than the left and was edematous and fixed. The left hemilarynx was movable. The left arytenoid coaptated with the right by moving to it across the midline. The right cord was seen only in the posterior third. There was no visible ulceration and the tumor mass was submucous.

On direct examination the tumor involving the right false cord and the right aryepiglottic fold was entirely smooth, round, and extended from the base of the epiglottis, posteriorly, to the aryepiglottic fold and the arytenoid. On lifting the entire mass, anteriorly and laterally, with a smooth tip anterior commissure laryngoscope, the right true cord could be visualized and was found to be entirely normal. The anterior commissure laryngoscope was passed between the vocal cords and the subglottic area examined; and it was found to be entirely normal. The laryngopharynx was likewise examined, and the mucosa was smooth although slightly reddened throughout. There was no change in the mucosal surface of this lesion, and palpation of the tumor with forceps revealed it to be semifirm in consistency. There was no ulceration or tissue found suitable for biopsy.

Impression: Submucous tumor of the right false cord involving the right aryepiglottic fold, extending from the base of the epiglottis, posteriorly, to the aryepiglottic fold and arytenoid.

Roentgen therapy consisting of the 400 K.V. to two areas, right and left side of the neck, was given for sixteen days—from April 28 to May 13, 1941. The patient received 3,750 r. units (measured on the skin) to each area, or a total dose of 7,500 r. units (measured on the skin), resulting in complete disappearance of the lesion. The patient has been well and free from disease for about four months (September, 1941).

CONCLUSION

1. The incidence of laryngeal cancer is on the increase.

2. The majority of early cancers of the larynx are operable.

3. Radiosensitivity and radiocurability of a cancer of the larynx are not dependent upon the microscopic structure but rather upon the mobility of the tumor and the surrounding structures.

4. Three cases are reported of well-advanced laryngeal cancer which were treated by irradiation therapy. In one patient there has been no recurrence during a period of more than two years, none in the second patient for almost two years, and the third patient has been well and free from disease for about four months.

DISCUSSION

Dr. J. Vernal Cassady: Dr. Bulson is to be congratulated for calling our attention to the status of irradiation for cancer of the larynx. Most of us have been trained to believe that surgery is so successful in early laryngeal malignancy that we would only use irradiation for hopeless or at least inoperable cases. Few laryngologists have sufficient experience with cancer of the larynx to form definite opinions; almost none of us give x-ray treatments and few of us do laryngofissure or laryngectomies, so our ideas are based on our earlier teaching, the treatment of a few cases, and the literature of the Jacksons, the Mayos and the roentgenologists. Successful irradiation is only about ten years old. As yet it is still on trial as the essayist points out. The location of the tumor is much more important than its histologic classification in determining its radiosensitivity and the method of treatment which would be most desirable. Dr. Cutler and other roentgenologists have pointed out that the classification of tumors histologically helps very little in determining their radiosensitivity; many tumors either highly differentiated, or others undifferentiated, may be radiosensitive.

There are three types of laryngeal cancer, according to extent and location: the first group is the early involvement of one cord, usually in its anterior third but occasionally involving the anterior commissure; the second is the group in which the lesion has extended posteriorly on the cord, to

produce fixation or involvement of the posterior commissure; and the third group is the extrinsic carcinoma.

In the first group laryngofissure is favored over radiation in most clinics because:

1. The operative mortality is less than one per cent.
2. The hospital stay is short, usually about one week.
3. There is seldom loss of the voice.
4. Five-year cures are obtainable in eighty per cent of these cases.
5. Radiation is uncertain and is still in the experimental stage.
6. Radiation hampers healing if surgery is needed later.
7. The radiologist is not a laryngologist and is unable to observe the larynx to note the result of the treatment, whereas the surgeon is able to see whether the growth is removed and to watch for later recurrence.

In the third group surgery is not successful and radiation is the choice, if not for cure—at least for palliation.

In the second group the lesion is too extensive for laryngofissure. Radiation is not so suitable where infiltration or fixation has occurred. Surgery, even if it entails laryngectomy, probably is the method of choice.

All of us must advise our patients whether they should have irradiation or surgery. Dr. Bulson's paper has brought us a relatively new viewpoint, a laryngologist advocating irradiation. The past ten years has brought startling strides in irradiation therapy, making it an accepted method of treatment in certain types of early malignancy of the larynx.

347 West Berry St.

EARLY SYMPTOMS AND SIGNS OF CANCER OF THE RECTUM

JOHN HABERMEL, M.D.
NEW ALBANY

Cancer of the rectum is quite comparable with cancer elsewhere in the body, and in addition it enjoys a site most amenable to investigation. I again wish to emphasize the importance of rectal examinations in the search for cancer. The early symptoms and signs of cancer of the rectum are confusing. One can not help but be impressed by the lack of consecutive clearness in the replies given by the patient when a history is taken. Where one patient will complain of constipation, another will complain of diarrhea. Most of them give "piles" as the reason for disturbance in the anorectal region. By the time the symptoms are urgent enough to bring the patient to a physician for examination, the growth may be well established and frequently is inoperable. It is common to discover an advanced cancer of the rectum with a short history. It seems that there must be some reason why cancer of the rectum is so rarely seen in its early stage, and part of the answer will be found in the fact that the rectum and the large bowel have no direct spinal sensory innervation, the nerve supply being entirely sympathetic and autonomic. While we must admit that there is some sort of painful sensation felt from the disturbance of the sympathetic system, the symptoms of practically all this portion of the bowel produce disturbances of function rather than that of sensation.

Someone has said that the time to cure cancer is before cancer has developed, meaning, of course, the eradication of lesions which are forerunners of malignant transformation. Whether the lesions known as "precancerous" lesions, such as the papilloma, adenoma, chronic infections or scar formation is the predominant factor favoring malignancy is not known, but we do know they offer a fertile soil. It is certainly wise to remove these lesions where possible and follow at intervals with examinations for recurrence. The control of cancer of the rectum will be promoted by the direction of full attention to the early diagnosis and to prophylactic measures, and less to the etiological phase. This can not be stressed too strongly, for upon the discovery of early cancer depends the hope of successful treatment.

The textbook description of the symptoms and signs of cancer of the rectum are chiefly those of advanced carcinoma. The symptoms and signs listed are bleeding, tenesmus, offensive discharge, constipation, diarrhea, fecal incontinence, loss of weight and strength, and cachexia.

Syphilis of the rectum and anus, and certain benign growths, such as the mucus polyp or adenoma, the papilloma, the hemorrhoids and chronic inflammatory processes produce symptoms similar to that of early neoplasm. These are tenesmus, contipation or diarrhea, watery or bloody stools, flatulence and colicky pains. The bleeding from neoplasm and from ulcerative colitis differs materially from that caused by internal hemorrhoids. In the latter group the blood is bright red, occurring usually at stool. The bleeding stops soon after defecation and it frequently appears during this act. The bleeding from ulceration of the rectum and the colon, whether benign or malignant, is noted as either streaking the surface of the stool or being mixed with the fecal mass. Mucus or a seropurulent discharge may be found. In cancer, after ulceration begins, the discharge has a highly

and peculiarly offensive hemorrhagic and purulent odor.

Cancer of the rectum is rarely discovered early, and it calls for a radical surgical procedure consistent with its extent and location. The adenocarcinoma is the most common type and ranks third in malignancy. The scirrhous carcinoma is the second most common form, and is most malignant. This form of cancer commonly produces stricture. Squamous epithelioma arises from the anus, is second in malignancy, and is rare. Other types found in the rectum are the highly malignant melanocarcinoma, the colloid and the medullary cancer which grows as a soft mass and ulcerates quickly.

The use of fulguration, x-ray or radium should be used only as an adjunct to surgery and should never be used as a substitute. Surgical interference is the choice procedure unless there is some special contraindication due to the location of the growth, the patient's general condition, or his refusal of an adequate surgical operation.

CONCLUSION

In conclusion, it is my opinion that the early symptoms and signs of cancer of the rectum are indefinite and very confusing; therefore, the following outline for examination of the rectum and the lower bowel is again emphasized: (1) palpation of the rectum by the finger; (2) the use of the proctoscope and the sigmoidoscope; (3) tissue study of all the suspicious areas; (4) Wassermann test; and (5) x-ray studies. Furthermore, it is the duty of the medical profession to educate the public as to the importance of consulting a competent physician when rectal examinations are indicated and a search is to be made for early malignancy of the rectum.

DIVERTICULITIS OF THE COLON*

J. K. BERMAN, M.D.†
THOMAS B. BAUER, M.D.
INDIANAPOLIS

The word "diverticulum" means, literally, a bypath. It is a blind tube, or sac, branching off from a principal channel. We may look upon four classes of diverticula: (a) a normal functioning pouch for storage and absorptive purposes, such as the gall bladder, or (b) those natural pouches whose function is unknown, such as the appendix; (c) a congenital defect, or so-called "true diverticulum," containing all the layers of the wall of the organ involved, such as Meckel's diverticulum, or other congenital diverticula of the small or large bowel; (d) acquired, or so-called "false diverticula," such as esophageal, urinary bladder, and colonic diverticula.

Sometimes diverticula occur as a compensatory mechanism, not only to relieve pressure but to increase retention space or provide more area for absorption of fluid. An example of this is the dilatation of the bile ducts, with the formation of parietal sacculi after extirpation of the gall bladder.

INCIDENCE

A study of diverticulosis of the large bowel and its complications is timely because of its commonness. An accurate survey of world statistics, including the twenty-three cases we are reporting, has led to the following conclusions: the disease is (1) practically always acquired; (2) it is rarely encountered in persons under thirty years of age, where the incidence is about 0.5 per cent; (3) over forty the incidence in the general population is variously estimated at 5 to 10 per cent and is more common in males, 1¼ to 1; (4) complications develop in about 15 to 25 per cent of this group; and (5) from 25 per cent to 50 per cent of these complications demand surgical interference for relief. In other words, 3 to 5 per cent of all cases of diverticulosis demand surgery, and these complications are more common in females, 2¾ to 1.[1,2] Thirteen cases in our group, or 56.5 per cent, were treated medically; surgery was necessary in seven, or 30.4 per cent, whereas three were not treated. (Tables I, III, IV and V.)

TABLE I

CLINICAL TYPES OF DIVERTICULOSIS	*Number of cases*
Type I—Diverticulosis without symptoms	2
Type II—Diverticulitis with vague abdominal pain and bowel dysfunction (constipation and diarrhea or both)	6
Type III—Diverticulitis with symptoms and signs of appendicitis	2
Type IV—Diverticulitis with symptoms and signs of large bowel obstruction and the presence of an abdominal tumor	5
Type V—Diverticulitis resembling left-sided appendicitis, with perforation and general peritonitis	I
Type VI—Diverticulitis with urinary bladder symptoms	2
Type VII—Diverticulitis with external fistulae	I
Type VIII—Diverticulitis with colonic bleeding	3
Type IX—Diverticulitis associated with ulcerative colitis	I

* Presented before the Central Surgical Association at Ann Arbor, Michigan, February 28, 1941.

† From the surgical service of the Indiana University School of Medicine, Indianapolis, Indiana.

[1] Edwards, Harold C.: Diverticula and Diverticulitis of the Intestine, and Pathology, Diagnosis and Treatment, Baltimore, Williams and Wilkins Co., 1939.

[2] Bearse, Carl: Diverticulosis and Diverticulitis of the Colon, *Jour. A.M.A.*, 1940.

EMBRYOLOGY

As one of us has pointed out in previous communications,[3, 4] the development of the gastrointestinal canal may be conveniently grouped under three embryological divisions: (1) The foregut which extends from the mouth to the middle of the second part (*pars descendens*) of the duodenum (duodenal papilla). Its blood supply comes mainly through the celiac axis, and its function is digestive. (2) The midgut which gives rise to the remainder of the small and the large intestine to the middle of the transverse colon. It is nourished by the superior mesenteric artery, and its function is that of absorption. (3) The hindgut gives rise to the left half of the transverse colon to the junction of the anal canal and rectum. Its blood supply comes from the inferior mesenteric artery and its function is chiefly excretory, although absorption of water and a few other substances does occur here. The older anatomists and embryologists refer to the hindgut as the portion of the primitive gut which gives rise to the entire colon and terminal ileum. However, based on anatomical and physiological studies, the present concept is perhaps more accurate.

In the child at birth only the terminal part of the pelvic colon lies in the pelvis. This is due to the small size of the pelvic cavity. Furthermore, the iliac colon lies in the left iliac region, but the sigmoid flexure (pelvic colon) usually lies on the right side and passes over the right portion of the brim to enter the pelvis. The small pelvis in the linear type adult apparently does not prevent the complete descent of the pelvic colon commonly seen in the lateral type.

TABLE II

COMPLICATIONS OF DIVERTICULOSIS

A. Acute Diverticulitis:
   1. Gangrene with perforation
      a. Spreading peritonitis.
      b. Localized abscess.
         i. Secondary abscess by continuity.
         ii. Pylephlebitis with multiple liver abscess.
         iii. Subphrenic or perinephric abscess.
         vi. Empyema.
      c. Rupture into bladder, bowel or other viscera, or to the exterior.
B. Chronic Diverticulitis:
   1. Colitis
      a. Hemorrhage and ulceration.
   2. Pericolitis
      a. Obstruction.
      b. Adhesions to other viscera.

ANATOMICAL AND PHYSIOLOGICAL CONSIDERATIONS

The large intestine is equal to about one-fifth of the entire intestinal canal and measures five to five and one-half feet. Its breadth is greatest at the cecum, and from this, with the exception of a dilatation at the rectum, it gradually decreases to the anus. At the cecum it measures, when distended, about three inches in diameter; beyond this it gradually diminishes and measures only one and one-half inches, or less, in the descending, iliac, and pelvic divisions of the colon.[5] The iliac colon has no mesentery, whereas the pelvic colon has a well-developed one. This permits a wide range of movement. It usually crosses the pelvis from right to left, then bends backwards and returns along the posterior wall of the pelvis to the median line. The layers of the large bowel are like those of the small, viz., mucosa, muscularis, submucosa, circular muscle, longitudinal muscle, and serosa. The large intestine, with the exception of the rectum and vermiform process, may be easily distinguished by the three longitudinal bands, or taeniae coli, and the appendices epiploicae. The longitudinal fibers of the muscular coat do not form a complete layer continuous all around the bowel, but are broken up into these three bands which are about one-fourth inch (6 mm.) wide. They begin at the base of the appendix and extend along the surface of the gut at nearly equal distances until the rectum is reached, where they form a continuous layer of longitudinal muscle fibers. Since the taeniae are one-sixth shorter than the intestine to which they belong, the bowel is thrown into sacculations. Three rows of saccules are thus produced along the length of the bowel between the longitudinal bands. If the taeniae are dissected off, or their contractile power is reduced under anesthesia or postmortem, the sacculation is largely lost. On the inside of the bowel the saccules give rise to pouches (haustra) separated by crescentic folds (plicae semilunaris coli) which correspond to the creases on the outside separating the saccules. (Figure I.)

The taeniae lie on the anterior, posterolateral, and posteromedial side of the gut. The appendices epiploicae lie chiefly on either side of the anterior

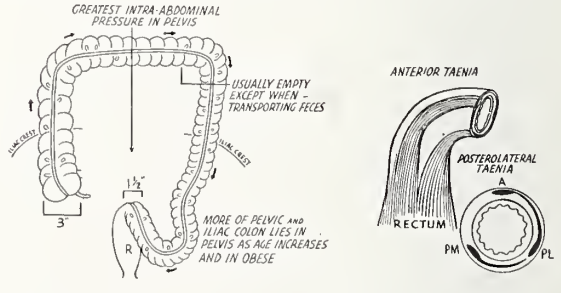


Fig. 1.—Diagram illustrating the anatomical peculiarities of the large bowel which may play a role in the formation of diverticula. On the left, the large bowel is shown roughly as a cone, with its wide part at the cecum and its narrow part at the rectosigmoid junction. On the right, the taeniae are shown to expand as they approach the rectum, completely encircling the bowel at this point. The lower portion of the pelvic colon is devoid of longitudinal muscle over a small area on either side: A, anterior taenia; P.M., posteromedial taenia; PL, posterolateral taenia.

[3] Berman, J. K.: Congenital Anomalies of Midgut, *Internat. Clin.*, **4**:240-262, (Dec.) 1937.

[4] Berman, J. K.: Congenital Anomalies of Rectum and Anus, *Surg., Gynec. & Obst.*, **66**:1-2, (Jan.) 1938.

[5] Cunningham, D. J.: Textbook of Anatomy, New York, Oxford University Press, 1931.

longitudinal band. Here diverticula are frequently encountered. On the transverse colon the arrangement appears differently, but if it is turned up on the abdomen the bands are in the same position. However, as seen within the abdomen, the anterior taenia becomes the postero-inferior (taenia libera) and the posterolateral becomes the anterior (taenia omentalis), whereas the posteromedial becomes the superior (taenia mesocolica). The posterolateral taenia of the iliac colon passes below to the front of the pelvic colon and rectum, and unites with the anterior taenia to form a broad band which occupies nearly the whole width of the bowel. The posteromedial taenia spreads out in a similar manner on the back, so that the lower portion of the pelvic colon has almost a complete longitudinal layer, except a narrow margin on each side. Here the circular muscles come to the surface, and sacculations, although small, are present. These disappear as the rectum is approached, and the longitudinal muscles are thicker.

TABLE III

AGE DISTRIBUTION IN DIVERTICULOSIS

20 to 30	3
30 to 40	2
40 to 50	3
50 to 60	6
60 to 70	5
Over 70	4

The blood vessels of the large bowel enter from the mesentery along the mesenteric side of the lateral and medial posterier taeniae and also some small vessels between them. Since the longitudinal muscle is incomplete, the vessels lie rather superficially between the posterior and anterior longitudinal bands beneath the serosa. This accounts for the enormous distention which is possible in the large intestine without complete interference of the blood supply, as compared with the relatively small amount of distention tolerated in the small bowel where the vessels are covered by both circular and longitudinal muscles. (Figure II.)

Diverticula are frequently found where the blood and lymph vessels enter or leave the bowel,[1] for it is here that the circular muscle is defective and the area of least resistance is created. Since

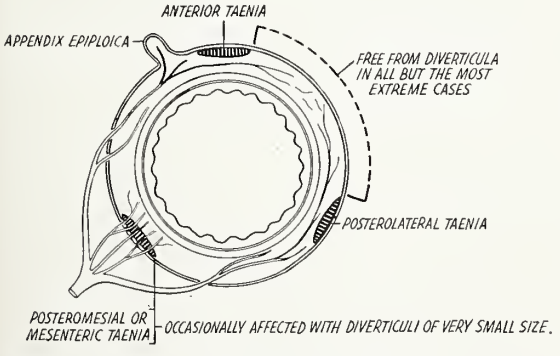


Fig. 2.—Diagram illustrating the blood supply of the large intestine.

the veins are larger than the arteries and are easily distended by passive congestion, this opening rather than the arterial is probably at fault at the onset, although there is no proof of this.

The large bowel is innervated by the sympathetics and parasympathetics (craniosacrals). The former is inhibitory and the latter stimulative, while the sphincters (ileocolic, internal, and external anal) are contrarily innervated; that is, the motor nerve to the sphincters is through the sympathetics, and the parasympathetics are inhibitory. Therefore, stimulation of the parasympathetics increases bowel tone and causes relaxation of the sphincters, whereas stimulation of the sympathetics inhibits intestinal activity and causes a contraction of sphincters (reciprocal innervation or contrary innervation) although the external anal sphincter is also under voluntary control.

Due to this dual mechanism and also to the rhythmical property of intestinal muscle itself, certain movements are seen in the large bowel. There is little movement in the cecum and the fecal mass is propelled by (a) passive overflowing of the cecum, and (b) slow ill-defined contractions. Although some antiperistaltic waves have been seen in lower animals, this has not been observed in man.[5]

TABLE IV

DIVERTICULOSIS DIVIDED AS TO SEX

Male	9
Female	14

The rest of the large bowel, unlike the small, does not show antiperistaltic, segmenting, or pendular movements. Even peristalsis is ill-defined. There is contraction of the circular muscle showing the sacculations and, in the transverse colon, some weak movements and alternate shortenings and elongations. By far the most important motor action of the large bowel is the mass peristalsis which sweeps the contents for some distance. This corresponds to the rush-wave of the small intestine. It is said to occur not more than two to three times in twenty-four hours, and the subject is normally unaware of it. Sometimes it is initiated after eating (gastrocolic reflex) and, no doubt, psychic influences affect this.

The wave usually begins in the hepatic flexure and the colon loses its haustral markings. The fecal mass is moved into the pelvic colon, which acts as a storehouse and then the haustral markings reappear. The ascending, transverse, and descending colon are usually empty, except when transferring feces, and the pelvic colon fills from below, upward. It is evacuated through the rectum and anus by defecation. The rectum is also empty except preceding and during the act of defecation.

When the fecal mass fills and distends the rectum to between 40 and 50 mm. Hg., the defecation reflex occurs. This is as follows:

(1) Strong peristaltic contraction of the colon.
(2) Shortening of longitudinal bands which are indirectly fixed to the rectococcygeus muscle.
(3) Relaxation of sphincters.
(4) Voluntary contraction of abdominal muscles and fixation of diaphragm in inspiration, causing a rise in intra-abdominal pressure. This depresses the ascending, transverse, and splenic flexure of the colon. The fixed cecum becomes globular, and the intrarectal pressure, which is normally 20 mm. Hg., may rise to 100-200 mm. Hg., during straining. The levatores ani, transversi perinei, and coccygeus muscles prevent prolapse, and the former actually pull against the descending force.[6]

TABLE V

LOCATION OF DIVERTICULA IN TWENTY-THREE CASES OF DIVERTICULOSIS OF THE COLON

Sigmoid* colon	8 or 34.7%
Descending and sigmoid colon	6 or 26.0%
Transverse and descending colon	3 or 13%
Transverse, descending and sigmoid colon	3 or 13%
Transverse colon	1 or 4.3%
Ascending colon	2 or 8.6%

ETIOLOGICAL FACTORS

Although the exact etiology of diverticulosis is unknown, many factors are known to contribute to its occurrence. These may be grouped as follows:

1. Embryological.
2. Anatomical.
3. Physiological.
4. Pathological.
5. Physical (Table VI).

A careful review of the evidence concerning the cause of this disease reveals the following facts:

1. Diverticula are usually acquired, and are seen frequently in people past forty who are more often of the lateral than the linear types, although they must be thought of in all ages and types.[2]

2. They are usually found in the pelvic and iliac colons, but may occur throughout the large bowel.

3. They may be present anywhere on the circumference of the bowel, but are usually found: (a) along the anterior taenia, and (b) on the mesenteric side of the anterior and posterolateral taenia, where vessels penetrate the wall of the colon.

4. The cause of diverticulosis is probably a combination of factors due principally to an increase of intraluminal pressure and a decrease in the resistance of the intestine's wall to this pressure. The former may be influenced by (a) the smallness of the bowel lumen at the junction of the rectum and the sigmoid;

TABLE VI

ETIOLOGICAL FACTORS IN DIVERTICULOSIS

I. Embryological Factors

1. Congenital anomalies rarely found in hindgut except at its terminal portion, which may be blind, or in rectum. The anus is a common site.
2. Many congenital (true diverticula) may occur as determined by the presence of all layers of the colon; however, these layers may become thinned or separated later in life, leaving only the mucosa and submucous coat.
3. Congenital anomalies usually are not so multiple in an organ, although they may be in various organs coincidentally.
4. The incidence increases with age.
5. In the child at birth only the terminal part of the pelvic colon lies in the pelvis.
6. The bowel in its development grows away from the vessels, tending to produce traction upon its walls.

II. Anatomical Factors

1. The colon is wider at the cecum (3 in.) and narrower at the sigmoid (1½ in. or less).
2. The pelvic colon lies in a horizontal plane, giving rise to stasis.
3. The longitudinal muscles only partially cover the large bowel, by 3 longitudinal bands known as "taeniae." Even in its lowermost portion these muscles do not completely encircle the bowel.
4. The taeniae are one-sixth shorter than the bowel, giving rise to sacculations. These form three rows and are definitely divided by the well-developed circular muscle. The sacculations, when distended, resemble large diverticula.
5. The appendices epiploicae along the anterior longitudinal band offer a site of least resistance.
6. The blood vessels create a real defect in the circular muscle layer and, according to Edwards, are the points of least resistance.
7. Passive congestion in the veins, which are normally larger than the arteries, or lymph vessels seems to play an important role.

III. Physiological Factors

1. There is little peristalsis in the colon except for the powerful rush-waves which fill the pelvic colon from below upward.
2. The sigmoid is the most sensitive portion in the large bowel, giving rise to spasm here. When fully distended the sacculi bulge outward, providing more space for storage.

IV. Pathological Factors

1. Spasm of circular muscles.
2. Adhesions causing traction diverticula.
3. Muscle deficiency on either side of the anterior taeniae which leads to herniations into the appendices epiploicae. This deficiency is due to:
   a. Wear and tear of age.
   b. Muscle degeneration.
   c. Increased pressure within, due to constipation or other causes.
4. Muscle atrophy sometimes occurs.

V. Physical Factors

1. Diverticula can only occur as a result of two forces:
   a. Increased pressure from within, that is, pulsion.
   b. Pulling from without, that is, traction.

These factors are effective when there are local points of lowered resistance.

2. Experiments in cadavers, in which an increase in intraluminal pressure was produced, caused a rupture of the bowel at the mesenteric border. In living persons, air injected under high pressure into the rectum may cause a perforation in the anti-mesenteric border. In living dogs, such pressures also cause a break in the anti-mesenteric border.

3. Sudden increase in intraluminal pressure following obstructive resections, or the injection of large amounts of water for enema, may cause perforation at various points on the circumference of the bowel.

[6] Best, C. H., and Taylor, N. B.: Physiological Basis of Medical Practice, Baltimore, Williams & Wilkins, 1939.

* Sigmoid includes iliac and pelvic colon.

(b) constipation (although this is doubtful);
(c) spasm of circular muscle; and
(d) obesity causing increased intra-abdominal pressure (although diverticula also are found in thin persons).

The latter, that is, the decreased resistance of the bowel wall, may be influenced by

(a) large canals for the entrance and exit of vessels;
(b) congenital defects; and
(c) wear and tear of muscle as age is increased.

5. The above factors are all present in the pelvic colon, where there is a small space in a transverse position which bears the brunt of high intraluminal pressure because of the weight of the fecal content; the rush peristaltic wave with filling from below upward and the squeezing action on the outside—all of which tend to force pouch formation if any weakness exists in this area. This probably accounts for the fact that about 86 per cent of all diverticula of the large bowel are found here. (Tables V and VI.)

PATHOLOGY

Diverticula may be covered with mucosa and submucosa only, or with fibrous tissue and a few longitudinal muscle fibers, subserous fat and serosa, or variations of these layers, but hardly ever by circular muscle. Diverticula may be microscopic in size and thereby evade detection by x-ray or gross inspection, yet give rise to symptoms and signs. (See Figure III.)

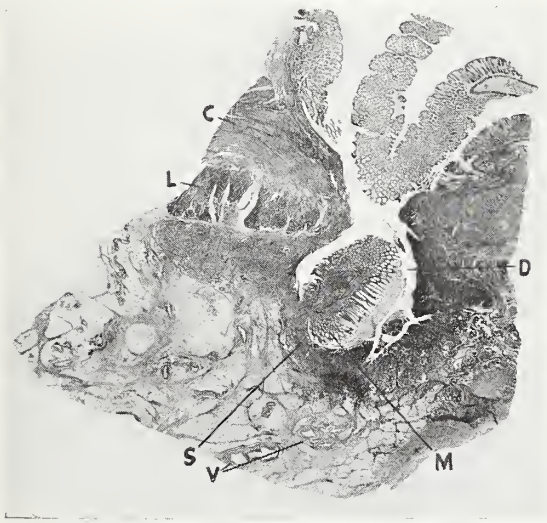


Fig. 3.—Photomicrograph of a small diverticulum from a resected sigmoid, which was the seat of a chronic diverticulitis with obstruction: C, circular muscle; L, longitudinal muscle; D, diverticulum; M, mucous membrane; S, submucous coat; V, blood vessels.

We are here more interested in complications of the diverticula. These may be simple inflammation, which may be severe enough to interfere with the blood supply, causing gangrene with perforation. This complication may in turn give rise to (a) local abscess formation, (b) general peritonitis, and (c) fistula. In addition, the diverticula may become chronically inflamed, causing a thickening of the entire bowel wall, sigmoiditis with or without pericolitis with fibrosis (gas-pipe colon). Lastly, as a result of either the acute or chronic processes, obstruction of the lumen of the bowel may occur with all of the pathological changes and effects of intestinal obstruction. (Table 2.)

We must also mention the complications of acute inflammations in the abdomen, such as pylephlebitis with liver abscess, subphrenic abscess and empyema, or even septicemia, and in all instances the enormous area involved in widespread inflammation gives rise to hemoconcentration and stagnant anoxia, which may be more important in the causation of severe systemic effects than the infection.[7]

SYMPTOMS AND SIGNS

Uncomplicated diverticulosis causes few, if any, symptoms or signs, and its diagnosis depends entirely upon the barium or double contrast enema. The complications present signs readily interpreted in most cases, however, almost any lesion of the large bowel may be mimicked. There may be sudden pain which begins and remains in the left lower quadrant, together with little nausea or vomiting, but with great tenderness and rigidity, with or without demonstrable air beneath the diaphragm on x-ray, indicating a perforation. This must be contrasted with the chronic case which present symptoms of bowel dysfunction not unlike carcinoma with alternating constipation and diarrhea. Lastly, the classical finding of gas and foul urine through the urethra is diagnostic of vesico-colic fistula. The relatively low temperatures (that is, without pylephlebitis or liver abscess) and low counts are interpreted as being due to the diffusion of the inflammation, which does not accumulate under pressure. This is not true when abscess or spreading peritonitis is present.

A word of caution is necessary concerning the presence of a mass, blood in the stools, and x-ray interpretations. All may point to a carcinoma, but all may, and often do, occur in diverticulitis. The pouches fill with granulation tissue which bleeds easily, and because of this, or swelling or foreign bodies, they will not fill with barium—giving only the long ragged outline which, except for the length of the bowel involved, resembles carcinoma. One must always consider malignancy in these cases, because they occur in the proper age group, yet the incidence of this disease in diverticulitis is very low. One of our patients had a carcinoma of the prostate, another carcinoma of the colon, arising in polypi.

[7] Berman, J. K.: Laboratory Aids in the Diagnosis and Treatment of Abdominal Emergencies, *J. Ind. State Med. Assoc*, **33**:298, 1940.

PROGNOSIS

The prognosis in diverticulitis, regardless of the mode of treatment, is not good. Hayden[8] reports forty-four unoperated cases of which three died in the hospital, fourteen died later, and twenty-seven are alive—with eight having recurrent attacks. Of forty-nine operated cases, twenty-eight died and twenty-one are living—five having recurrences. Of this latter group, thirty-one had only one operation, whereas eighteen had two or more operations. Arnheim[9] reports an operative mortality of 62 per cent. Lockhardt-Mummery[10] is less lugubrious in his outlook. Of one hundred and thirty-six cases, ninety-one were treated by operation and forty-five were not. The mortality was just over 10 per cent.

In the twenty cases treated in our series, seven were operated upon, with one death, the mortality rate being 14.2 per cent. In thirteen cases, no surgery was used and the mortality rate was 7.6 per cent (one death). The total mortality for the twenty cases was two deaths, or 10 per cent. (Tables VII and VIII.)

TABLE VII

TREATMENT

a. Non-surgical	13
b. Surgical	7
c. No treatment	3
Types of surgical treatment:	
1. Resection of sigmoid	1
2. Inversion of diverticulum	3
3. Drainage of abscess	2
4. Cecostomy	1
5. Cecostomy—exteriorization of loop of sigmoid and later replacement	1
6. Closure of fistulae	1

Mr. O. K. had two operations—cecostomy and later drainage of abscess.

Mr. H. Y. had two operations—inversion of diverticulum and drainage of abscess.

TREATMENT

Uncomplicated diverticulosis requires no treatment. Long ago David,[11] and others, called attention to the use of low residue diets and mineral oil as an aid in the prevention of complications. Recently Brown and Logan[12] have extolled the virtues of olive oil. It is our practice to use white solid petrolatum, which has a high melting point and does not produce a liquid stool, but has a desirable lubricating action. Diurnal evacuations are desirable, and large enemas or cathartics may be harmful.

(1) Acute diverticulitis should be treated with low residue diet, bed rest, sulfamides, petrolatum, attention to water balance, and blood transfusions when anemia or hemoconcentration occurs. Unnecessary exploration should not be done because it is not innocuous.

(2) Sudden perforation requires surgical intervention with turning in of the perforated diverticulum, if feasible, and then wrapping with omentum. If not feasible, the loop should be mobilized and placed outside the abdomen, and a tube anchored.

(3) Local abscess should be adequately drained through a muscle-splitting incision.

(4) Spreading peritonitis is treated in the classical manner, with nothing by mouth, tube suction together with ample drainage, sulfamide, blood and plasma transfusion, and intravenous medication.[13]

(5) Fistulae are treated by dividing the fistulous tract and turning in both sides, then interposing omentum. In addition, some form of diversion of fecal current may be temporarily necessary.

(6) Chronic diverticulitis without obstruction is best treated by resection. However, when we remember the forces active in the causation of diverticula we can readily see that in many instances there may be recurrence near the site of anastomosis. Mikulicz's operation is difficult because of the short, thick mesentery. End-to-side anastomosis is better.

TABLE VIII

MORTALITY RATES

a. Non-surgical	1 death in 13 cases
b. Surgical	1 death in 7 cases
c. Death from other causes	
Diverticula an incidental finding	3

TOTAL MORTALITY RATE

20 cases treated—2 deaths, or 10%.

(7) Chronic diverticulitis with any degree of obstruction demands first a diversion of the fecal current. This is necessary to deflate the obstructed bowel. It also enables the surgeon to make further studies, so that carcinoma may not be overlooked. The following procedures may be used:

(a) Appendicocecostomy.
(b) Cecostomy.
(c) Ileostomy.
(d) Transversostomy.
(e) Colostomy.

Of these, "spur" transversostomy is the best except in acute obstruction.[14] Here appendiecocecostomy is the most feasible and is easily done.

(8) If obstruction is present and the diverticula extend very low, permanent colostomy should be done and the distal rectum turned in. It is best to drain after this procedure through the culde-sac in the female, and posterior to the rectum beside the coccyx in the male.

[8] Hayden, E. P.: Surgical Problems in Diverticulitis, *New England J. of Surg.*, **222**:9, pp. 340-343.

[9] Arnheim, E. E.: Diverticulitis of the Colon with Special Reference to Surgical Complications, *Annals of Surg.*, **112**:321-480, (Sept.) 1940.

[10] Lockhardt-Mummery, J. P.: The Treatment of Acute Diverticulitis, *Brit. M.J.*, **1**:588, 1929.

[11] David, Vernon. Diverticulosis and Diverticulitis with Particular Reference to the Development of Diverticula of the Colon, *Surg., Gynec. & Obstet.*, **56**:375-381, 1933.

[12] Brown and Logan: *Year Book of Surgery for 1939*, Chicago, p. 452.

[13] Berman, J. K.: Synopsis of Principles of Surgery, St. Louis, C. V. Mosby Company, 1940.

[14] Hayden, E. Parke: Surgical Problems in Diverticulitis, *New England J. Med.*, **222**:340-343, (Jan. to June) 1940.

(9) In chronic cases with obstruction, involving large areas of the colon, preliminary diversion of the fecal current, followed by mobilization and extrusion of the involved portion through a muscle-splitting incision, is a good procedure. This operation is useful in patients considered as "bad risks" and is based on the following observations:

(a) It prevents the load on the vulnerable portion of the bowel by lifting the bowel out of the pelvis.
(b) A new and better blood supply develops.
(c) Nerve influence may be decreased, relieving spasm.
(d) The diseased portion of the bowel recovers.
(e) Should complications recur, they would be extraperitoneal.
(f) Fistulae could form only to the outside and thereby deflate the loop.
(g) The operation is simple and easily performed, with very low mortality.

The following case reports will illustrate some of the problems encountered in the diagnosis and management of the disease:

TYPE I

DIVERTICULA AS AN INCIDENTAL FINDING PRODUCING NO SYMPTOMS

Case 1. J. S., a white man sixty-eight years of age, was admitted to the Long Hospital complaining of pain in the abdomen about one to one and one-half hours after eating, which was partially relieved by food. The bowels were sluggish, but there was no definite history of constipation. The patient had been in good health up to the present illness. Physical examination was uninforming except for tenderness in the lower left abdomen. Laboratory examinations of the urine, stools, and blood were normal except for the blood count which showed 2,760,000 erythrocytes and 70 per cent hemoglobin. X-ray examination revealed a diaphragmatic hernia, gastric ulcer, and extensive diverticulosis of the colon, particularly in the sigmoid. While in the hospital the patient began to bleed from the bowel. In spite of repeated transfusions, the patient died before surgery could be safely instituted, as a result of massive hemorrhage. Autopsy revealed a combination of pathological entities. There was generalized arteriosclerosis and diaphragmatic hernia. Two gastric ulcers were found. The sigmoid showed multiple diverticula, particularly of the lower part. These varied in size from one-half to one inch in diameter. Apparently they did not contribute to the cause of death.

Case 2. B. H., a white woman, was admitted to the Long Hospital in deep coma. She was fifty-one years of age and, according to the family, had complained of dizziness, frequent vomiting, and staggering for about four weeks. The patient's temperature was 107°, pulse 125, respiration 62. The urinalysis showed 1.25 per cent sugar and 12-15 pus cells. Spinal fluid findings were essentially normal. The patient died thirty-six hours after admission. The clinical diagnosis was encephalitis. Autopsy revealed a massive intracranical hemorrhage, which was subtentorial, and cerebral arteriosclerosis. Diverticula were found in the transverse and descending colon. These were not inflamed and were noted as an incidental finding, not related to the cause of death.

TYPE II

DIVERTICULITIS WITH VAGUE ABDOMINAL SYMPTOMS AND BOWEL DYSFUNCTION

Case 3. R. L., an obese white woman forty-five years of age, was admitted to the Long Hospital, complaining of cramping pains in the abdomen, bowel dysfunction manifested by periods of diarrhea which alternated with periods of constipation, great distention in the abdomen, intermittent episodes of vomiting, lasting two to three days at a time, and occasional passage of bright red blood in the stools.

Physical examination revealed tenderness over the ascending and transverse colon. No masses were felt. The temperature varied between normal and 100°F. The blood counts varied between 5,500 and 7,150 leucocytes with 74 per cent polymorphonuclears. The stool examinations contained no ova or parasites. The laboratory work otherwise was also normal. Gastro-intestinal x-ray examination with a barium meal revealed diverticulitis in the transverse colon. The patient's abdominal pains were thought to be due to recurrent irritations of the diverticula of the transverse colon and she was accordingly placed on a low residue diet. Her symptoms subsided.

Case 4. M. M., a white woman thirty-six years of age, was admitted to the Long Hospital complaining of pain in the left abdomen, passage of blood with the stool, and constipation. She had had no serious illness, but had suffered from constipation for ten years. If she neglected her daily laxatives much distention and eructation of gas resulted. There were occasional attacks of vomiting.

Laboratory findings were essentially normal. The examination of the colon by barium enema revealed diverticula in the transverse and descending colon. She was placed on a low residue diet and advised to discontinue all cathartics. She returned to the gastro-intestinal clinic, much improved upon her new regime.

Should symptoms continue, resection of the involved colon would be indicated in this case. We believe that in young individuals with persistent symptoms and limited involvement of the colon, partial colectomy is the treatment of choice. This prevents the continual disabilities which are sure to occur in chronic diverticulitis. Moreover, it prevents the many complications which may occur.

Case 5. R. C., a white man, thirty-three years of age, came to my office in January, 1941, complaining of vague abdominal pain, which was accompanied by a feeling of chilliness and slight nausea. Five years previously he had been operated upon elsewhere for appendicitis. This was done through an upper right paramedian incision, and exploration revealed normal findings except for the appendix which was classified as fibrotic.

His illness began six years ago, with symptoms similar to the chief complaint. A complete physical examination was noninforming except for a blood pressure of 180 systolic and 120 diastolic. The urine was normal, kidney function was normal, blood Wassermann was negative, and the blood count showed 11,000 leukocytes per cu. mm. with 84 per cent polymorphonuclears.

Repeated x-ray examinations done previously failed to reveal anything abnormal except for pylorospasm. X-ray examinations done in January, 1941, by the barium meal revealed an extensive diverticulosis and diverticulitis of the colon as shown in Figure 6.

The patient was placed on a low residue diet and given solid petrolatum, and has remained free from symptoms thus far. A simple way of taking the petrolatum is by mixing it with butter. This not only disguises the substance, but makes it impossible to detect.

Case 6. B. S., a white woman fifty-one years of age, was admitted to the Long Hospital, complaining of indigestion; nausea, but no vomiting; constipation, and "soreness" occurring at varying locations in the abdomen. The above symptoms were of three years' duration, and occurred intermittently.

Physical examination was entirely normal, as were blood counts, urinalyses, and all other laboratory findings. Gastro-intestinal examination by x-ray (barium

meal and enema) revealed many diverticula beginning at the hepatic flexure, extending across the transverse colon and including the sigmoid. The colon was spastic. The patient was placed upon a low residue diet with large amounts of cream, butter and other fats. Upon this regime the symptoms abated.

Case 7. M. A., a white woman, sixty years of age, was admitted to the Long Hospital, complaining of diffuse abdominal pain. The patient stated that she had noticed this within the last six months. There was no history of constipation, nausea, or vomiting. No abnormalities were found on physical examination. The laboratory studies were normal. The temperature was normal. X-ray examination by barium enema revealed several small diverticula of the sigmoid and descending colon. There was considerable spasticity of the colon, especially in the descending portion. She was diagnosed as having a diverticulitis of the descending colon. The treatment consisted of low residue diet, tincture of belladonna and phenobarbital. The patient improved under this management.

No doubt many patients diagnosed as having a "spastic colon," "irritable colon," "colitis," and "mucous colitis," have in reality diverticula which become irritated from time to time, much like crypts in the rectum become irritated. Spasm may not only be a factor in the causation of diverticula, but in their subsequent irritation—conversely, the irritation undoubtedly induces spasm. Thus a vicious circle is created which requires careful attention to the patient as a whole in addition to his colon.

DIVERTICULITIS WTH ABDOMINAL SYMPTOMS AND DIARRHEA

Case 8. M. Q., a white woman, sixty-six years of age, was admitted to the Long Hospital, complaining of diabetes, which she had had for many years, and bowel dysfunction. She stated that she had episodes of diarrhea, abdominal distention and pain, especially in the left side. The patient also complained of arthritis which had been present in many joints for years. She had been a diabetic for the past three years, but had not had any management. Thyroidectomy was performed two years previous to admission.

General examination showed a moderately obese woman, with a thyroidectomy scar in the neck. The patient had varicose veins in both extremities. Blood pressure was 200 systolic and 96 diastolic. Laboratory work was essentially normal, except for the urine which contained sugar and many pus cells. Fasting blood sugar was 138 mg. The blood count was essentially normal. A study of the colon by barium enema revealed multiple diverticula, especially of the descending and the sigmoid colon. The colon was extremely spastic.

The patient was stabilized on a diet of 120-50-50 and insulin of 24-8-14 units. She also was given petrolatum, but has not improved on this management. When last seen the patient was still having some abdominal pain and episodes of diarrhea; however, she had not been following the dietary suggestions, nor had she taken the petrolatum.

TYPE III

DIVERTICULITIS OF ASCENDING COLON WITH SYMPTOMS AND SIGNS OF APPENDICITIS

Case 9. H. Y., a white man, aged twenty-two, employed as a soda dispenser, came to the Methodist Hospital on March 14, 1931, complaining of severe abdominal pain, chills, fever, nausea, and vomiting. Seven months previously he had had an attack which was diagnosed as acute appendicitis and for which appendectomy had been performed. Prior to this time the patient was well except for vague abdominal discomfort, constipation for which cathartics were used, and failure to gain weight. Since his operation he has had repeated episodes of abdominal pain, which were of short duration. The present attack occurred seven days previously, March 7, 1931, with generalized abdominal pain, nausea, vomiting, and constipation.

Physical examination revealed a thin, pale young man whose important findings were in the abdomen. A long right paramedian abdominal incision was noted, which had evidently healed by second intention for there was an unusual amount of cicatrization. The abdomen was scaphoid and generally rigid. There was extreme tenderness in the right lower quadrant. Temperature was 101°F, pulse 130. Rectal examination revealed tenderness in the right rectal shelf. Urine was normal. White blood count was 15,200, polymorphonuclears 85 per cent, red blood count 3,100,000 and hemoglobin 74 per cent.

The reader will appreciate the difficulty of diagnosis. Flat x-ray plate of the abdomen revealed some gas retention in the large bowel and showed the cecum to be in normal position. Was this a foreign body left in the abdomen? a subphrenic abscess? a tuberculous process? terminal ileitis? The lungs were clear, diaphragm in normal position, no jaundice. This was an acute inflammatory lesion producing partial obstruction, for the relief of which surgery was indicated. Seven days had elapsed since the onset of symptoms, and the family physician had observed a gradual increase in the severity of symptoms.

Operation was performed under ether anesthesia. A right muscle-splitting incision was made. The parietal peritoneum was inflamed. The cecum and terminal ileum were adherent to the lateral wall of the pelvis and the anterior abdominal wall. Careful division of the adhesions enabled us to inspect the terminal ileum and cecum. The appendix had been removed and the stump inverted. The ileum was normal. On the lateral wall of the ascending colon about two and one-half inches distal to the ileocecal valve an abscess was encountered. It was about one inch in diameter, and pointed posteriorly. This could not be felt through the abdominal wall as the distended colon lay over it.

The abscess was drained and found to communicate with a perforated diverticulum. The diverticulum was closed by inversion sutures of 00 chromic catgut. No other diverticula were seen at this time. Two Penrose drains were inserted into the abscess cavity. The greater omentum was wrapped about the drained area and the abdomen closed in a routine manner. Recovery was uneventful.

The patient was last seen in 1940 and there had been no recurrence of symptoms.

Case 10. D. G., a white unmarried girl, aged twenty-two, social service student, entered the Methodist Hospital on December 27, 1940, complaining of diffuse abdominal pain. There was nothing of importance in the past history except that two weeks previously the patient had a similar attack which lasted for about three days then disappeared. She had never been constipated. The present illness began on Christmas day, with continual sharp cramping pains across the abdomen, some nausea but no vomiting. These pains gradually moved toward the right lower quadrant and had remained there in a continuous manner.

The patient was obese and presented no important physical findings except for generalized abdominal rigidity and tenderness in the right abdomen about McBurney's point. Vaginal examination could not be done due to intact hymen, and rectal examination was uninforming.

The temperature was 100.4°F., pulse 120. White blood count was 13,500, with 72 per cent polymorphonuclears. Urine normal. A diagnosis of acute appendicitis was made and the abdomen was entered through a right muscle-splitting incision under ether anesthesia. The cecum and terminal ileum were easily delivered through the incision. An acute diverticulitis was encountered on the anterior wall of the cecum about one-half inch

distal to the ileocecal junction. The diverticulum had evidently perforated and was covered with a fibrinopurulent exudate. The area of induration was about one inch in diameter. The diverticulum was turned in by inversion stitches of 00 chromic catgut. Two other diverticula were seen on the ascending colon; these were not disturbed. The terminal ileum was normal and no Meckel's diverticulum was found. The appendix was inflamed, due probably to the general peritoneal reaction about the area of the diverticulum. Appendectomy was done and the stump of the appendix inverted with interrupted 00 chromic catgut. The greater omentum was wrapped about the cecum and two one-inch Penrose drains inserted. The abdomen was closed in a routine manner. The drains were removed on the fourth day and the patient recovered without complications. Microscopic examination of the appendix showed the serosa to be very edematous, with minute hemorrhages extending into the muscularis. Many polymorphonuclears were found.

X-ray examination of the colon by barium enema showed extensive diverticulosis of the large bowel. It is interesting to note that this girl's father also has extensive diverticulosis of the large bowel. This was first discovered in 1931, when he was thirty-nine years old. His complaint was vague abdominal pain at irregular intervals. A bland diet and solid petrolatum has left him fairly free of symptoms.

TYPE IV

DIVERTICULITIS WITH OBSTRUCTION—LATER PERFORATION

Case 11. M. O. K. K., a white man, aged sixty-eight, was admitted to St. Vincent's Hospital on May 20, 1941, complaining of constipation, distention, vomiting, inability to void, chills and fever, pain in the left lower abdomen, and bloody stools.

For many years the patient had attacks which were termed "ptomaine poisoning" by his physician. These attacks consisted of abdominal pain, chills and fever, diarrhea and some nausea, but no vomiting.

His bowel habits were unusual. He stated that the slightest desire for defecation was not tolerated, and he would go to the toilet as often as four to five times a day, with small pencil or mushy stools resulting. No x-ray examination had ever been made and the patient's general health had been good. There was slight loss of weight with each attack, which was regained subsequently. These episodes occurred as often as two to three times a year and usually lasted about one week to ten days. There was no constipation. The patient did not take cathartics except during an attack.

The present illness began two weeks previously with an attack as described. Many cathartics were taken without effect. Soon distention occurred, with vomiting.

Physical examination revealed a mass in the left lower quadrant which was slightly tender, about four inches in diameter, and fixed. Rectal examination was uninforming except that the inferior portion of the tumor could be felt with the examining finger. There was great distention; sounds were heard throughout the abdomen with the stethoscope.

Temperature was 101.2°F., pulse 100, white blood cell count 11,400, polymorphonuclears 76 per cent. Catheterization of the urinary bladder yielded 600 cc. Some red blood cells, some pus and mucus was seen on microscopic examination. He was diagnosed as having an obstructing lesion at the rectosigmoid, due to diverticulitis with peridiverticulitis and localized peritonitis. The possibility of a malignant lesion was strongly suggestive. The patient was put on a peritonitis regime—nothing by mouth, Levin tube with suction, daily intravenous infusions of normal saline and glucose, and blood transfusion. After three days of this treatment the patient began to expel flatus. On the fourth day he had a large, foul liquid stool which contained much blood and pus. The Levin tube was removed and liquids given by mouth. There were frequent stools filled with blood and pus. Repeated examinations of the stools for parasites or ova were negative. By the sixth day of this management the mass could not be felt. The patient was put on a low residue diet and petrolatum, and left the hospital on the tenth day.

The stools gradually became more formed. X-ray examination and proctoscopic examination revealed extensive diverticulitis of the descending and sigmoid colon. The patient returned to his home in the East.

In July, 1941, he had another attack of abdominal pain. X-ray and proctoscopic examination revealed diverticulitis. Biopsy showed inflammatory tissue. Following this procedure there was a recurrence of the condition observed in May, 1941. Medical management was unsuccessful. Cecostomy was done. This relieved the obstruction, but chills, fever, and sweats occurred, with jaundice. The mass on the left side was large and fluctuant. This was drained. The patient grew steadily worse and died in October, 1941, of multiple liver abscess due to septic pylephlebitis with general septicemia.

DIVERTICULITIS AND SLOW PERFORATION WITH WALLING-IN BY OMENTUM

Case 12. A. D., a white woman, seventy-five years old, was admitted to the Long Hospital, complaining of constant pain in the lower abdomen of twelve months' duration. There had been no nausea or vomiting. There was generalized abdominal tenderness, especially in the right lower quadrant and suprapubic region. The past history revealed nothing of importance except that the gall bladder had been removed seventeen years previously. Examination revealed a non-tender, slightly movable mass in the left iliac region of the abdomen. There had been a progressive increase in constipation.

The temperature ranged between 98 and 100°F. Leucocytes numbered 11,000 per cu. mm. and polymorphonuclears were 68 per cent. Urine was essentially normal.

X-ray by barium enema revealed a great narrowing of the lumen of the colon at the junction of the descending and sigmoid. The entire descending colon was irritable. There were many small diverticula of the descending colon. The diagnosis of diverticulitis, with peridiverticulitis due to perforations, was made. Operation was not performed. The patient was placed on a low residue, high fat diet and improved under this regime.

DIVERTICULITIS WITH OBSTRUCTION-COMPLICATING CANCER OF PROSTATE

Case 13. H.G., a white man, aged fifty-nine, came to the Long Hospital complaining of severe pain in the rectum and increasing constipation. There was also pain in both legs, associated with some hypesthesia. The patient was acutely ill. His rectal pain was so severe that repeated hypodermics of morphine, gr. ¼, were necessary to control it. Rectal examination revealed a hard tender mass about three inches from the anus. The temperature ranged from 98° to 105° F. The blood count was normal, Wassermann was negative, urinalysis showed traces of albumin and finely granular casts. Barium meal revealed a filling defect at the rectosigmoid juncture. Barium enema confirmed this finding, and a diagnosis of carcinoma of the rectosigmoid was made. X-ray studies of the pelvis and lumbar spine showed metastatic carcinoma. Four days after admission the patient developed pneumonia and died.

Autopsy revealed an adenocarcinoma of the prostate, with stricture of the sigmoid due to diverticulitis. Metastatic carcinoma was found in the left fifth rib, body of the fourth lumbar vertebra and bones of the pelvis. Examination of the sigmoid showed many diverticula for a distance of six to eight inches above the constricting diverticulitis. The diverticula were on either side of the anterior longitudinal band; sixteen could be counted situated very closely together within this distance (eight inches). While the primary cause of death was carcinoma of the prostate, an acute diverticulitis

caused the partial bowel obstruction and contributed to the patient's demise.

DIVERTICULITIS WITH OBSTRUCTION AND THE PRESENCE OF A MASS IN THE ABDOMEN

Case 14. Mrs. M.B., a white woman, seventy-two years of age, came to the Long Hospital complaining of increasing constipation, gaseous distention, and pain in the left lower abdomen. Physical examination revealed a fixed, tender mass in the left lower quadrant of the abdomen.

The laboratory examinations revealed occasional pus cells in the urine, a hemoglobin of 12 gms., a red blood count of 4,530,000, and a white blood count of 6,050, with normal differential. X-ray examination was not made. The clinical diagnosis was carcinoma of the recto-sigmoid.

The patient was operated upon three days after admission and the tumor previously described was easily identified. It was found to be about three inches in its longitudinal and two inches in its transverse diameter, and was attached to the lower sigmoid at about its junction with the rectum. Exploration of the abdomen failed to reveal any other morbid anatomy. The descending colon was kinked over this tumor and it was regarded as a carcinoma. The mass was removed together with about 12 cm. of bowel and an end-to-side anastomosis was carried out. An appendicocecostomy was performed and a tube anchored by inversion sutures into the cecum. The abdomen was closed without drainage. Examination of the tumor by the pathologist revealed this lesion to be an acute diverticulitis (See Figure 3). The wall of the diverticulum was made up of fibrous tissue. The patient made an uneventful recovery and has been free from symptoms up to the present time.

DIVERTICULITIS WITH BOWEL OBSTRUCTION AND THE PRESENCE OF A MASS IN THE ABDOMEN

Case 15. B.R., an obese white woman, aged fifty-six, was admitted to the Indianapolis City Hospital on the tenth of December, 1939, complaining of attacks of severe abdominal pain, soreness, nausea, vomiting, bloating, and occasional attacks of diarrhea, alternated by constipation. The patient had been suffering from similar attacks for the past five years.

On admission the abdomen was greatly distended, with extreme tenderness and rigidity in the left lower quadrant. A mass was palpable in this area. This mass could also be felt by vaginal examination. The temperature at this time was 99° F., the pulse was 120 and respirations were 30. She was given intravenous salt and glucose solutions, a Levin tube was anchored with suction, and morphine was given to control pain. The erythrocytes were 4,500,000 and the leucocytes 13,650 with 69 per cent polymorphonuclears. There were no other significant laboratory findings.

On the third day after admission the temperature rose to 101.4° F. and returned to normal on the following day. A small amount of gas and feces was passed and the patient felt much better. Two thousand cc. of 5 per cent dextrose and normal salt were administered and x-rays were made. These showed an area of irregular contour, with incomplete obstruction, and were diagnosed as diverticulitis. Following the administration of the barium enema, the patient became completely obstructed and two days later, December fifteenth, she was given a blood transfusion of 500 cc. and 2,000 cc. of normal salt solution and glucose and appendicocecostomy was done. After this procedure the temperature rose to 102.3° F. During the following week the patient was given repeated intravenous injections of salt and glucose solutions, blood, and blood plasma transfusions. The appendicocecostomy functioned well, the temperature returned to normal, and the abdomen became completely deflated. A large tender swelling (about eight inches long and four inches wide) could be felt easily in the left lower quadrant. On December twenty-eighth, abdominal operation was performed. At this time the sigmoid was found to be greatly thickened and edematous. The mesentery was thick and hard, and the entire pelvic colon was adherent to the bladder and pelvic wall. The bowel was dissected free with difficulty, and biopsy with frozen section was made from the mesentery and from a lymph gland. The friability and hardness of the sigmoid resembled carcinoma; however, the involvement seemed to be in the outer layers of the bowel rather than within its lumen, and the tissue diagnosis was "inflammatary lesion." The wide area of bowel involved, which extended roughly from the splenic flexure to the recto-sigmoid, and the numerous adhesions made it inadvisable to extirpate this portion of the bowel; therefore, the sigmoid was freed sufficiently to bring it to the exterior and two glass rods were placed through the mesocolon and the peritoneum stitched to the bowel wall.

On the second of January, 1940, eighteen days after operation, the temperature had returned to normal and the patient was having bowel movements, although the appendicocecostomy was still draining. Since sufficient bowel had not been extruded to do a Mikulicz resection and the lesion now was known to be inflammatory, also because of the fact that the bowel was functioning normally, it was decided to remove the glass bars and allow the diseased bowel to retract beneath the fascia. This was done and the abdominal wall gradually healed by second intention. The appendicocecostomy ultimately closed. The patient was dismissed from the hospital on the eighteenth day of March, 1940, approximately three months after her admission. She has been observed repeatedly in the out-patient clinic since that time and has remained entirely well.

This operation in a modified form had been used previously by Houston, although we were not familiar with his method at this time.[15]

TYPE V

DIVERTICULITIS RESEMBLING LEFT-SIDED APPENDICITIS, WITH PERFORATION AND PERITONITIS

Case 16. W.S., a white woman, forty-three years of age, was admitted to the Long Hospital on April 11, 1940. Her chief complaint was pain in the left lower abdominal quadrant which began one week before admission and which was associated with obstinate constipation and vomiting. The day before admission the patient experienced a sudden severe abdominal pain. This began on the left side and spread throughout the lower abdomen, extending upward in the subcostal area on both sides.

The patient was an obese woman, sweating profusely, was pale, and was worried about her condition. General examination revealed no abnormal findings except in the abdomen. This was rigid throughout, tympanitic on percussion, and, because of the extreme rigidity and generalized tenderness, the palpation of any mass which might have been present was impossible. The abdomen was silent on ausculation. Bimanual examination was unsatisfactory; however, nothing abnormal could be palpated.

The temperature ranged between 101° F. and 105° F. terminal. The blood pressure was 140/100. The pulse was 132. The leucocytes varied between 9,900 and 15,000 per cu. mm. and the total polymorphonuclears from 78 to 98 per cent divided as follows: adult, 5 to 2; myelocytes, 0 to 8; metamyelocytes 5 to 20; and bands 68. A flat x-ray plate of the abdomen revealed an accumulation of gas in the colon. There was no evidence of an obstructive lesion. A diagnosis of general peritonitis due to perforated appendicitis was made in the admitting room. Upon her admission to the ward morphine gr. ¼ was given hypodermically. The Levin tube was anchored and suction applied. As soon as deflation was partially accomplished, it was apparent that there was a tumor in the region of the sigmoid.

[15] Houston, H. R.: Diverticulitis of the Colon in Women, *Archives of Surgery*, **26**:1111-1112, 1933.

The diagnosis of diverticulitis with perforation was then made.

The patient was put on a peritonitis regime but did not respond. She became stuporous a few hours after admission and died twenty-four hours later.

Autopsy revealed acute diverticulitis of the sigmoid, with perforation and spreading peritonitis.

TYPE VI

DIVERTICULITIS WITH BLADDER SYMPTOMS, DIVERTICULITIS WITH COLOVESICAL FISTULA, POLYPOSIS AND CARCINOMA

Case 17. W.C., a white man seventy-four years of age, was admitted to the Long Hospital, complaining of diarrhea and severe urinary urgency and frequency. His temperature ranged from normal to 102.6° F. The physical examination revealed tenderness in the lower abdomen, more over the bladder than in the left lower quadrant. Laboratory studies were normal except the urine which contained many pus and blood cells.

The barium enema revealed mild irregularity in the filling of the ampulla of the rectum, no definite filling defect, considerable irritability of the distal portion of the descending colon, and multiple diverticula, particularly of the transverse and descending colon.

The patient was given blood transfusions and intravenous fluids in an effort to improve his general condition for surgery. These measures were unavailing, and he died shortly after admission. Autopsy was done and the following findings were recorded: Small polypoid growth in the rectum which is definitely carcinoma. The sigmoid is curved on itself, and the lower loop is attached to the pelvic floor and the left side of the urinary bladder by these adhesions. The surface of the colon contains several diverticula. The lumen shows many polypi. Some of these are adenocarcinomas. Pathological diagnosis: Adenocarcinoma of the colon, diverticulosis and diverticulitis with perforation and adhesions to the left side of the bladder.

The incidence of carcinoma arising in the presence of chronic diverticulitis is small. However, the clinical symptoms and signs of both are very similar. This makes it imperative that carcinoma be ruled out. In all doubtful cases biopsy should be done at the time that preliminary colostomy is performed.

DIVERTICULITIS WITH SLOW PERFORATION AND ADHESIONS TO BLADDER, CAUSING BLADDER SYMPTOMS

Case 18. Mrs. D.H., a white married woman, aged fifty-nine, para I, came to my office February 21, 1936, complaining of tenderness in the left lower quadrant. She had borne one child and had last menstruated fourteen years ago. She had had no previous operations or severe illnesses. During the past two months there had been increasing constipation and some vague abdominal pain, with indigestion. The family physician ascribed these symptoms to gall bladder dyskinesia. However, upon close questioning the following symptoms were revealed: much distention especially about two to three hours after meals, belching—no particular food at fault; generalized sharp abdominal pain—more in the left lower quadrant and about the umbilicus, and loss of appetite.

Cathartics increased the above symptoms even though they were effective. There were frequency and urgency of urination, more during the day than at night.

There has been no loss of weight during the past five years. No blood was seen in the stools. The present illness began February 17, 1936, four days prior to the first visit to my office. The onset was sudden and began with severe aching sensation in left side.

Her temperature was 100.5° F., pulse 110, blood pressure 150/100. There was a tender mass in the left lower quadrant about five inches in diameter. Blood counts showed 10,500 leucocytes with 72 per cent polymorphonuclears; erythrocytes numbered 4,560,000, with 64 per cent hemoglobin. The urine showed no albumin or sugar, red blood cells 10-12, pus cells 10-20 per high power field, many bladder epithelial cells and mucus.

A diagnosis of possible carcinoma of the sigmoid, or diverticulitis with perforation, was made. Proctoscopic examination revealed an inflamed bowel with no evidence of malignancy. Exploration was done on February 23, 1936. The pelvis contained old blood and many blood clots. The sigmoid was adherent to the posterior bladder wall. A large hard mass in the sigmoid was found to be densely adherent to the bladder. It was carefully dissected. The mass was found to be a large inflamed diverticulum, which had perforated. The bladder wall was inflamed but intact. The diverticulum was turned in by 00 chromic catgut, and the small denuded area on the bladder wall repaired by inversion sutures of the same catgut. Many diverticula were found along the sigmoid. They were very thin and were filled with fecal matter which could be easily emptied by manual pressure. The omentum was now wrapped about the inflamed bowel. The thickened mesosigmoid contained many enlarged lymph nodes. One was taken for biopsy and was found to be the seat of the chronic inflammation. The abdomen was closed without drainage, and the patient made an uneventful recovery.

The patient was placed on a low residue diet and solid petrolatum. She was last seen June, 1941, with no recurrence of symptoms.

Incidentally, her daughter had a similar experience. X-ray by barium enema showed diverticulosis and diverticulitis to be present. Operation was not done. The attack subsided.

In reviewing our cases we have not infrequently found a history of diverticulosis in one or more members of the same family. This lends support to the theory that a congenital weakness is present.

TYPE VII

DIVERTICULITIS WITH EXTERNAL FISTULAE

Case 19. A.J., a white woman fifty-six years of age, was admitted to the Long Hospital in October, 1941. The chief complaint on admission was distention of the abdomen with pain and foul discharge from a fistulous tract in the right lower quadrant. The past history revealed: Acute appendicitis at the age of twenty-seven. She was in bed for six months during which time there was drainage from the wound. This ultimately healed without surgical intervention. The patient had typhoid fever when thirty years of age. Three and one-half years before admission she developed a bowel obstruction, and was operated upon. Following this operation she developed a fecal fistula and has had two subsequent operations for repeated attacks of obstruction and fecal fistulae.

Physical examination revealed a well developed and well nourished woman who was not acutely ill. She had a temperature of 99° F., and was suffering from severe pain in the abdomen. No masses were palpable. There were four scars in the lower abdomen: one longitudinal right paramedian, one midline below the umbilicus, one McBurney, and one extending to the left. The right paramedian and midline incisions each had small fistulous openings in their lower portions. Pelvic examination was uninforming as was also the rectal examination. The laboratory findings were essentially normal except for the urine which was loaded with pus and blood cells and had a foul odor. Upon careful questioning the patient admitted that there were attacks of dysuria, but that these were not severe. She also stated that there was some nocturia.

X-ray examination was made after injection of the fistulous tracts with lipiodol. These examinations revealed that the tracts were tortuous and did not connect, and that they contained many branches ending deep in the pelvis. One tract extended to the promontory of the sacrum. Barium enema revealed several small diverticula of the sigmoid. The colon could not be satisfactorily filled because the patient was unable to retain the barium, which, however, did not find its way into the fistulous openings. The barium meal was normal

except for a small duodenal diverticulum. A diagnosis of diverticulitis with perforation and vesico-intestinal fistula was made.

Operation was performed at which time the fistulous tracts were dissected out and were found to originate from two diverticula in the sigmoid. Their base was turned in with three layers of silk sutures. A branch of one of these fistulae connected with the bladder. The base of this one was approximately one and one-half inches in diameter, although there were narrow contractions proximal to the opening in the bladder. This was dissected out and the bladder wall turned in with three layers of black silk sutures. The greater omentum was tucked in over the bladder wall, and the abdomen was closed. One Penrose drain was placed into the pelvis. The patient made an uncomplicated recovery and was seen in out-patient clinic on several occasions. She has remained well to the present date.

TYPE VIII

DIVERTICULITIS WITH COLONIC BLEEDING

Case 20. P.B., a white man, forty-five years of age, was admitted to the Long Hospital, complaining of pain in the right lower quadrant of the abdomen, occasional attacks of vomiting and the frequent occurrence of blood in the stools. A few months prior to his admission he began to experience pain in the right iliac region. There had been frequent attacks of diarrhea during which times the stools were watery and were seen to contain blood. Appendectomy was performed elsewhere but did not relieve the symptoms. Examination revealed diffuse tenderness in the lower abdomen which also extended into the epigastrium. The temperature was normal, the leucocyte count was 10,900 with 62 per cent polymorphonuclears, and Wassermann was negative. Kidney function tests were normal. Repeated stool examinations were made, but no parasites nor ova were found. Benzedrine tests for blood were plus 1 and plus 2. X-ray examination of the thoracic and lumbar spine and also the chest were normal. The examination of the gastro-intestinal tract revealed a spastic and irritable duodenal bulb, otherwise normal. Barium enema showed great irritability throughout the transverse colon. Numerous diverticula were seen in the sigmoid region.

A diagnosis of diverticulitis of the sigmoid colon was made. He was placed upon a bland, low residue diet and was given tincture of belladonna and vitamin B_1, also mineral oil daily. This regime did not cause the slightest amelioration of symptoms.

Resection of the sigmoid colon will be done in the near future.

Case 21. M.L., a white woman, sixty-one years of age, was admitted to the Long Hospital, complaining of severe rectal bleeding. There were also occasional attacks of diarrhea, some indigestion, and some vague abdominal pain.

Physical examination revealed tenderness in the left lower quadrant of the abdomen. The temperature varied from normal to 101° F. The leucocyte count was 15,400 per cu. mm. with 70 per cent polymorphonuclears. Erythrocytes numbered 3,400,000, and hemoglobin was 59 per cent. Stool examination revealed blood in all specimens, but no parasites nor ova were found. Urinalysis was normal. Ewald's test meal was essentially normal. CO_2 combining power, 72 volumes per cent.

X-ray examination of the gall bladder was normal. The x-ray examination of the gastro-intestinal tract by barium meal and enema revealed an irritable colon, with ptosis of the transverse, and diverticula in the transverse descending and sigmoid colon.

The patient was given three blood transfusions after which the red blood count was elevated to 4,300,000 and the hemoglobin to 74 per cent. She was placed on a low residue diet, and was urged to discontinue the mineral oil which she had been taking. Upon this management the bleeding ceased and general improvement followed.

The cause of this hemorrhage was probably from granulation tissue which had filled in an inflamed diverticulum. Such tissue bleeds easily and was probably irritated in this case by dietary indiscretion and the petrolatum. The latter causes increased peristalsis and invites a greater amount of granulation tissue. Rest to the bowel permits the granulation tissue to be covered by mucous membrane.

Case 22. Mr. G.A.E., a white man, seventy-one years of age, was admitted to the Methodist Hospital, complaining of abdominal discomfort and frequent bloody stools.

He stated that he had had some bright red blood in his stools on several occasions, but never in such profuse amounts. Previously he had been told that the blood came from "internal hemorrhoids."

All laboratory tests were within normal limits except the erythrocytes which numbered 3,100,000. Hemoglobin was 60 per cent.

Rectal examination revealed some external and internal hemorrhoids which were not bleeding.

Protoscopic examination was uninforming except that the blood was seen to come from a higher level.

The patient was kept at rest in bed and given a non-residue diet. Deodorized tincture of opium was given to control the diarrhea.

The bleeding ceased after forty-eight hours of this treatment. One week later the colon was examined by x-ray with barium enema and double contrast methods. Numerous diverticula of the sigmoid and descending colon were found. There was much spasm in the sigmoid. The remainder of the colon, as well as the terminal ileum, was normal. The appendix was not visualized.

The diagnosis was diverticulitis of the sigmoid and descending colon.

This case is very similar to the preceding one, and its cause is probably the same.

TYPE IX

DIVERTICULITIS ASSOCIATED WITH ULCERATIVE COLITIS

Case 23. M.S., a white man aged twenty-nine, was admitted to the Methodist Hospital with the diagnosis of ulcerative colitis. His past history was as follows: For some months he had had episodes of diarrhea which alternated with short periods of constipation. At no time was there any blood in the stools. He frequently consumed large amounts of paregoric in an effort to control the diarrhea.

On admission his temperature was 102° F., his pulse was 120, he was extremely restless and irritable, and complained of slight nausea but no vomiting. His abdomen was distended and exquisitely tender in the left lower quadrant. The patient stated that he had had as many as twelve to fifteen stools a day in which there was considerable amount of mucus and blood.

The laboratory findings were as follows: Leucocyte counts ranging from 5,000 to 23,000, with 70 to 89 per cent polymorphonuclears; erythrocytes ranging from 2,000,000 to 4,000,000. Urine was essentially normal. Repeated blood cultures were negative. Repeated colonic smear was negative for parasites or ova. Repeated sputum examinations were negative for tubercle bacilli.

Gastro-intestinal x-ray was uninforming. Barium enema revealed multiple diverticula, with exceedingly spastic and irritable colon. Repeated proctoscopic examinations showed a typical picture of ulcerative colitis.

Mr. S. was in the hospital for approximately six months. He received numerous blood transfusions, intravenous medication, colonic irrigations and emetin because of the possibility of an amebic dysentery. Treatment was of no avail. Large doses of sulfanilamide were then given, and the blood concentration of the drug kept at a level of 10 mgm. per cent, and this

treatment seemed to turn the tide in his favor. He finally recovered but he had several brief episodes of the same complaint after his release from the hospital.

This case illustrates what might be termed an acute diverticulitis spreading to the adjacent bowel mucosa and presenting the picture of chronic ulcerative colitis. Undoubtedly this is not the latter, for it has been three years since his illness and there has been no recurrence of previous symptoms. He was last seen on October 21, 1941, at which time the bowel mucosa looked normal and all symptoms had completely disappeared. He is on a low residue diet.

SUMMARY

1. The incidence of diverticulosis of the colon is 5 to 10 per cent.

2. It is more common after the age of forty and increases with age.

3. Its cause is unknown but the prevalence of its location in the sigmoid is probably based upon a combination of anatomical, physiological, physical, and pathological causes.

4. Pathological studies revealed that diverticula may be very small and yet have complications. These complications are many and varied, and may be serious.

5. Symptoms and signs are almost absent in diverticulosis and are extremely variable in the complications. Almost any lesion of the large bowel may be simulated, including chronic ulcerative colitis[16] and carcinoma.

6. Treatment should be palliative in diverticulosis, also in complications, if this can be done. Surgical treatment varies with individual cases. Rest to the affected portion by diverting the fecal current is perhaps most commonly used. Resection in selected cases is most desirable.

7. In extremely extensive involvement with technical difficulties which preclude resection, preliminary colostomy followed by extrusion of the affected loop is a good procedure.

8. The prognosis as to morbidity is fair, and is not cheerful as to mortality.

9. Early recognition with dietary management, weight control, avoidance of cathartics and enemas; and the use of solid petrolatum to cause frequent evacuations without producing a liquid stool may decrease the incidence of complications.

(Many thanks are due Doctors Roger R. Reed, Edmund H. Schweitzer and E. M. Hoetzer for their aid in gathering statistical information from the records of the Indianapolis City, Methodist, and St. Vincent Hospitals, respectively.)

[16] Eggers, Carl: Acute Diverticulitis & Sigmoiditis, *Annals of Surg.*, **113**:1, 1941.

ABSTRACT

SAYS JAP POLICY OF AGGRESSION INCLUDES ILLICIT DRUG TRAFFIC

Illicit commerce in drugs is an important part of the aggressive policy of the Japanese government, *The Journal of the American Medical Association* for February 28, declares. *The Journal* says:

"Paragraph 15 of a booklet of regulations for Japanese soldiers reads as follows:

" 'The use of narcotics is unworthy of a superior race like the Japanese. Only inferior races, races that are decadent, like the Chinese, Europeans and East Indians, are addicted to the use of narcotics. This is why they are destined to become our servants and eventually disappear.'

"The role played by the 'superior' race in the enslavement of the other races through the use of narcotics is revealed in a statement by the Secretary of the Treasury, Mr. Morgenthau (release to the press, January 26). Commissioner of Narcotics Harry J. Anslinger reported to the secretary that he had abundant proof that Japan had defied international commitments by promoting the opium trade. The Japanese officials had three objectives in their traffic: to gain revenue, to corrupt Western nations and to weaken and enslave the peoples of lands already invaded or marked for invasion. Wherever the Japanese army goes, the drug traffic follows. This illicit commerce in 'white' drugs is more than tolerated by the Japanese government. It constitutes an important part of its aggressive policy. The extent of this traffic and the conditions engendered by it are truly appalling. According to out narcotic chief, not less than ninety per cent of all the illicit 'white' drugs of the world are of Japanese origin, manufactured in the Japanese concession of Tsientsin, in Dairen or in other cities of Manchuria, Jehol and occupied China, and this always by Japanese or under Japanese supervision. The report states that the Japanese concession in Tsientsin has become the heroin center of China proper and of the world, and it is from here that not only the Chinese race but all other countries of the world are being weakened and debauched. The Japanese consulate at Chengchow in Honan acts as a center for the distribution of drugs. The report further states that since the invasion of North China by the Japanese all legal control of the narcotic trade has ceased to exist. This is another form of chemical warfare against the Chinese people as deadly as war gases. Japanese authorities derive revenue from this traffic to cover part of the costs of their invasion of China.

"The entire situation was aptly summed up in the statement of Lieutenant Commander Fletcher, made in the House of Commons on Dec. 22, 1938: 'Pestilence and war are historically associated with each other, but it has been left to the Japanese to find a way of making a pestilence pay for war.' This presumably is the 'order and peace' and the 'benefits of friendly collaboration' that the Japanese military are bringing to the people of China. We are directly concerned in the matter because of an alarming amount of smuggling of the 'white' drugs into the United States. The statement reveals that by one gang of traffickers alone enough heroin was smuggled into the United States to supply ten thousand addicts for one year. One shipment seized in Seattle from four Japanese totaled a million shots of morphine. To combat this illicit traffic, a law was enacted by the United States in 1935 imposing heavy fines on the master or owner of any vessel visiting our ports on which unmanifested heroin, morphine or cocaine is found."

EMERGENCY DRUGS IN GENERAL PRACTICE*

FREDRICK F. YONKMAN, M.D.†
DETROIT, MICHIGAN

As long as physicians are called upon to offer relief in such emergencies as accidents, drownings, severe infections, pain, heart failure, poisonings and numerous other conditions of varying severity and urgency, "emergency drugs" must be available to serve either as auxiliary agents or as agents of first choice in emergency treatment. Many excellent drugs are now available, but better remedial agents will continue to be developed by proper cooperation of the chemist, pharmacologist and clinician.

The scope of this topic is obviously broad, but restrictions of time allotted demand limitation of our discussion to some of those drugs whose value has been proved by extensive usage under critical observation.

Clinically speaking, the most dramatic of recently introduced drugs are the sulfonamides, barely six years old. We are all so familiar with the important members of this group that for the present only the ones more recently introduced can be referred to, e.g., sulfadiazine which seems to offer certain advantages over sulfanilamide in being less acetylated, better tolerated and readily absorbed. Its relative value when compared with sulfanilamide, sulfathiazole and sulfapyridine in treatment of the wide variety of infectious conditions must await further clinical usage for final appraisal. It can be stated with reasonable certainty that it seems to be as good as, and frequently better than, other sulfonamides in pneumococcal pneumonia. If it were no more efficacious than other sulfonamides, its use might still be desirable because of its being better tolerated. There are varying opinions as to its value in treating hemolytic streptococcal infection, and critical investigation seems to indicate that sulfanilamide is still best for streptococcus viridans infections (alpha hemolytic) and sulfadiazine more efficacious in beta hemolytic streptococcal infections.

Sulfaguanadine, a very soluble but poorly absorbed compound, seems to have earned some merit when employed in the treatment of bacillary dysentery and as a prophylactic in abdominal surgery. Since only slight absorption occurs, relatively high concentrations can be maintained in some gastrointestinal tracts when used in children in the treatment of acute bacillary dysentery according to Spink's recommendations:

> "0.1 Gm. per kilogram of body weight as an initial dose; then 0.05 Gm. per kilogram every four hours day and night until the stools number four or less a day. Thereafter 0.1 Gm. per kilogram should be given every eight hours for seventy-two hours. Therapy should not be continued for longer than fourteen days. The dose in adults is the same, except that 0.05 Gm. per kilogram instead of 0.1 Gm. should be given after the number of stools is reduced to four or less a day."

Sodium salts of some sulfonamides are available for intravenous injection in concentrated solution when immediately high blood levels are desired. These solutions are strongly alkaline as a rule and may cause severe sloughing on extravasation. Hence, we have been interested at our laboratory in finding a suitable, nontoxic solvent for sulfonamides. Propylene glycol has high solvent properties for sulfanilamide (10%), and significantly high solvent properties for sulfathiazole (3%) and sulfapyridine (3 to 4%). These solutions are practically nonirritating to abrased surfaces or peritoneum, are moderately but only transiently irritating on intramuscular injection, but more so subcutaneously. The solutions are self-sterilizing and can be diluted with physiologic saline solution just before using without "salting out" at temperature of 35 or 37° C. Propylene glycol is practically nontoxic in very large dosage, in contradistinction to ethylene and diethylene glycol and this glycol may well offer practical possibilities for systemic as well as local application of nonirritating, concentrated solutions of sulfonamides. Time does not afford further discussion of this important group at present.

Since most of our patients come to us chiefly because they seek relief from pain or discomfort, this topic warrants some discussion. Our best analgetic still is morphine, although codeine and dilaudid have their obvious advantages in certain indications. However, certain pains can be treated more physiologically with *oxygen*, as demonstrated by various investigators, in migraine, coronary thrombosis, angina pectoris, adynamic ileus, etc. In these conditions as well as in eclampsia, severe infections, toxemias and shock, the problem of administering oxygen to the patient in the home has been solved by Boothby, Mayo and Lovelace[1] of the Mayo Clinic with their introduction of the compact, rubber aviator mask. This is closely applied over the nose, leaving the patient free to converse, to take fluids or regurgitate, and obviates also the dread of the oxygen tent, which to many lay minds indicates the "last resort." Oxygen used by the wayside garage for acetylene welding is for all practical purposes United States Pharmacopeia oxygen but is not so labeled. This can well

* Presented before the annual assembly of the Northern Tri-State Medical Association, April 8, 1941, at Tiffin, Ohio.

† Professor of Pharmacology and Therapeutics, Wayne University College of Medicine, Detroit, Michigan.

[1] Boothby, W. M.; Mayo, C. W., and Lovelace, W. R.: *J.A.M.A.*, **113**:477, 1939.

be used in emergency. The problem of transporting oxygen to the home will be solved very soon. If groceries and other commodities and modern conveniences now make the farm the best place to live, certainly the very ill in outlying districts should warrant more consideration. The Boothby mask can be readily washed with soap and water or non-caustic antiseptics, and can be conveniently packed in a small roll and transferred from one patient to the next. A large size tank (A) will carry a patient on oxygen at the cost of five or six dollars for twenty-four hours. If the physician desires oxygen for his patient for any indication, painful or otherwise, he must be willing to make it available, a problem far less involved than transporting a portable x-ray unit. Tanks on hand trucks, easily slid down a light runway from under the rear trunk cover of the physician's car, may soon occupy the "sleeping loft" now available in some automobiles.

Snake venom (cobra venom) has been promoted by some enthusiastic groups for the relief of certain pains, with the hope that morphine with its hazards might be replaced. A 2 cc. dose at about twenty-five cents per dose is twenty-five times more expensive than one-fourth grain of morphine (one cent) (hospital prices). This is a costly differential, but would be less so if snake venom were as efficient as morphine in depressing pain, but it is not. It is highly capricious and variable and may yet lead to many aberrant reactions if used promiscuously. Conservative opinion, supported by a recent report of the Council of Pharmacy and Chemistry of the American Medical Association,[2] inclines one to discount the occasional enthusiastic claims made for snake venom. The future may find routine emergency usage of snake venom for pain relief, but present clinical experiences of varying types do not encourage optimism.

Nitrites, especially amyl nitrite and nitroglycerin, have long been an important group of drugs, but rebirth of their gastro-intestinal potentialities has been due to the fine work of MacGowan[3] and his co-workers. Years ago biliary spasm was relieved by inhalation of amyl nitrite but, as is so typical of therapeutic procedures, each has its day, its peak and dip until therapy becomes rational as proven by objective physiologic research. With small balloons in the common duct of available patients, made accessible by way of drainage T-tubes following surgical intervention, such as cholecystectomy or cholecystotomy, MacGowan graphically demonstrated the relaxing effect of nitrites even after the smooth muscle of the common bile duct was painfully spastic with the use of morphine. Morphine tends to increase smooth muscle tone in the intestine,[4] as well as in the common duct. Hence, quick relief under amyl nitrite results from relaxation of all smooth muscle, including the spastic sphincter of Oddi, allowing dammed back bile to "flush" the common duct exit into the duodenum, carrying with it probably any small obstructing substance at the orifice. Continued relief necessitates sustained relaxation by the supporting use of nitroglycerin, many patients requiring no morphine if the nitrites are judiciously employed. Nitroglycerin can be administered, when needed, in dosage of one one-hundredth of a grain (0.0006 Gm.), and relief usually follows in from five to ten minutes, enduring for an hour or more and, on occasion, indefinitely. Dramatic relief has been obtained with this therapy in many hands and our limited experience supports the enthusiastic claims associated with this very rational type of treatment. As important as are new, specifically acting drugs, proper usage of available agents is extremely gratifying when physiologic pathology can often be so easily altered if one knows the cardinal action of commonly used, time-tested agents.

An incidental, but nevertheless very important usage of the nitrites is in the relief of cyanide poisoning, as demonstrated by Chen, Rose and Clowes[5] of Indianapolis. Sodium nitrite, 0.3 to 0.5 gram, is injected intravenously in about 10 cc. of saline, immediately *after which* (never with!) 25 grams of sodium thiosulfate in 50 cc. of saline are injected *slowly* in ten to twenty minutes. This may be repeated as needed. The chemical rationale of this treatment is interesting: cyanhemoglobin, a stable compound, is readily transformed into the less harmful cyanmethemoglobin, a far less stable compound which under thiosulfate becomes a relatively nontoxic thiocyanate and liberating hemoglobin in the conversion. If this treatment is supported by adequate oxygen therapy, many patients can be successfully treated. Experimentally it has been demonstrated that the above procedure protects against twenty-one lethal doses of cyanide which indicates that this treatment is about seven times more effective than the earlier introduced treatment of methylene blue, 50 cc. of 1% (U.S.P.) intravenously. Constant observation is mandatory until complete recovery, since sudden relapse has occurred even very late in apparently successful therapy.

An old stand-by in the physician's armamentarium is ethyl chloride. Recent word from Dr. R. E. Weller, of the Forsyth Dental Infirmary For Children at Boston, indicates that until November 10, 1941, ethyl chloride had been administered to 224,937 youngsters up to age fourteen without a single fatality. The margin of safety is not high, especially in adults under untrained hands, but its very deep analgesia and light anesthesia, quickly produced, warrant its frequent use by the general practitioner. A new emergency use of ethyl chloride has been demonstrated recently by Cozen and Hol-

[2] Report: *J.A.M.A.*, **115**:1196, 1940.

[3] MacGowan, J.; Butsch, W. L., and Walters, W.: *J.A.M.A.*, **106**:2227, 1936.

[4] Yonkman, F. F.; Hiebert, J. M., and Single, H.: *New Eng. J. Med.*, **214**:507, 1936.

[5] Chen, K. K.; Rose, C. L., and Clowes, G. H. A.: *Amer. J. Med. Sc.*, **188**:767, 1934.

lombe[6] of Los Angeles in the early treatment of severe sprains. Sprayed on just to the point of whitening of the skin without freezing, reflex spasm is relieved in the affected area and since pain is greatly relieved concomitantly, early ambulation is allowed, resulting in clearing of edema. Freezing can be prevented by quickly placing one's finger or thumb over any whitened area. The "afterglow" of local vasodilatation is frequently marked and encouraging. This type of treatment may have to be repeated three or four times, or more, but has virtue because of its simplicity as well as its efficacy. Many statements have been forthcoming reporting its successful use in some low-back pains, including sacro-iliac involvement. Proper evaluation in the latter condition awaits further, critical usage.

Sprains and pains of other origin are being treated by the injection of procaine hydrochloride (novocain) and alcohol, but a very significant use of the local desensitizing properties of procaine is the keenly rationalized procedure of DeBakey and Ochsner,[7] of New Orleans, for the treatment of thrombophlebitis. As an adjunct to other forms of therapy, which may include heparinization, these physicians inject procaine HCl, 1%, dorsally and extraspinally in the region of related sympathetic ganglia on the affected side. For example, thrombophlebitis of a lower limb, they believe, results in sensory stimuli reaching not only the cerebrum to remind the patient of pain and discomfort, but traversing also the sympathetic ganglia involved, resulting in a transfer of impulses from these sympathetic ganglia to vasoconstrictor fibers controlling blood vessels of the thrombophlebitic area, venuoles as well as arterioles. Since venous return is thus interfered with, intracapillary pressure rises, with endothelial ischemia and permeability increasing, allowing fluid escape into tissue spaces. This "waterlogging" interferes with lymphatic drainage and edema results. By anesthetizing the relay stations involved in transmitting the excess vasoconstrictor impulses, namely, the respective sympathetic ganglia, the venous bottleneck is opened, pain is relieved, ambulation is allowed and the patient is spared from several days to weeks hospitalization, which in these days of full hospital beds results in a considerable economic saving. The import of this successful treatment is obvious, but skill and caution are necessarily mandatory.

Severe overdosage by barbiturates resulting from accident or suicidal intent is a condition which the physician encounters more frequently of late because of the laity's knowledge concerning the drug. Annually we Americans consume about 175,000 or more pounds of barbiturates[8] in their various forms. Profound depression thus induced can be satisfactorily counteracted by such centrally stimulating analeptics as strychnine, picrotoxin and metrazol. The agent which seems to be most frequently used is picrotoxin, an old-fashioned medicament formerly employed in the "night sweats of phthisis." Long relegated to the background, it was brought forward by Dr. Maloney, now of Howard University, in his experimental demonstration that it was a specific antagonist for barbiturate poisoning in animals. Since the first successful clinical use of Maloney's findings reported by Dr. Arnett of Philadelphia, in 1933, hundreds of cases have been favorably treated. Usually, 3 mgm. of picrotoxin is injected intramuscularly and repeated until skeletal tremors or signs of slight motor activity appear. This dose is repeated when muscular activity wanes. As an alternative, a solution of 1:1000 strength of picrotoxin in 0.9% sodium chloride (1 mgm. per cc.) can be slowly infused intravenously and the speed of injection determined by very close observation of the patient, skeletal tremors serving as guide. Strychnine is a valuable agent according to Dr. Soma Weiss of Boston, but present day evaluation warrants listing barbiturate antagonists in this order: picrotoxin, metrazol, strychnine, nikethamide (coramine).

Strangely enough, however, perhaps the best antagonist by way of emergency treatment of strychnine convulsions is a soluble barbiturate. Dr. Kempf and his associates,[9] of Indianapolis, in 1933 reported the successful usage of sodium amytal intravenously in eleven cases of strychnine convulsions, and since this very valuable clinical introduction numerous cases have been successfully treated elsewhere. Hence, emergency treatment may imply either light chloroform or ether administration or if convenient and feasible, intravenous barbiturate, e.g., 0.5 gram (7½ grains) sodium amytal, repeated in less dosage as indicated. Other barbiturates may well be considered in this and other convulsive states, notably eclampsia.

Eclampsia presents a real emergency, but thanks to numerous workers in this field valuable alleviating agents are found not only in the barbiturates but in oxygen, Veratrum viride, dehydration therapy with magnesium sulfate, etc. Dr. Nicodemus of Danville, Pennsylvania,[10] recently reported that of thirteen eclamptic mothers treated with adequate oxygen no mother was lost and nine live babies were gained. This is a small series but the findings have tremendous significance. Oxygen therapy supported the use of barbiturates and Veratrum viride in Nicodemus' series.

The swing of the pendulum returning toward the use of Veratrum viride in eclampsia received great impetus from Drs. Bryant and Fleming of Cincinnati,[11] in 1940, who reported on one hundred twenty

[6] Cozen, L., and Hollombe, B. S.: *Surgery*, 8:468, 1940.
[7] Ochser, A., and DeBakey, M.: *J.A.M.A.*, **114**:117, 1940.
[8] Hambourger, W. E.: *J.A.M.A.*, **112**:1340, 1939.
[9] Kempf, G. F.; McCallum, J. T. C., and Zerfas, L. G.: *J.A.M.A.*, **100**:1593, 1933.
[10] Nicodemus, Roy E.: Oxygen Tent Therapy in the Treatment of Eclampsia, *J.A.M.A.*, **117**:1238, 1941.
[11] Bryant, R. D., and Fleming, J. G.: Veratrum Viride in the Treatment of Eclampsia: II, *J.A.M.A.*, **115**:1333, 1940.

cases with very favorabe results. Veratrum is a strong stimulant of the vagus nerve root in the medulla, slowing the heart much like digitalis in its early use, and resulting in a significant drop in blood pressure which may well be due also, at least in part, to vasodilatation. The tincture of Veratrum viride is used as described by the authors:

1. Give 10 minims (0.6 cc.) of Veratrum viride immediately; repeat every ten to fifteen minutes until the pulse rate is below 60 or the blood pressure is below 120 systolic; thereafter, until the patient is conscious, repeat in 3 to 10 minim (0.2 to 0.6 cc.) doses if the pulse rate goes over 80 or the blood pressure over 150 systolic; after the patient is conscious and cooperative, give 3 to 10 minim doses if the patient is nauseated or has severe headache, marked visual disturbances or epigastric pain or convulsions.
2. Give 10 cc. of 50% magnesium sulfate by deep injection immediately, 5 cc. every six hours for four doses and then 5 cc. every twelve hours for four doses.
3. Give 500 cc. of 20% dextrose intravenously at once; repeat every six to ten hours until consciousness returns.
4. Catheterize and give a soapsuds enema immediately.
5. Check the pulse and blood pressure hourly as long as coma persists, then every two to four hours while the patient is awake.
6. Force fluids (5,000 cc. daily) by mouth as soon as possible.
7. Give no sedatives except for extreme restlessness or labor.
8. Institute a diet free of salt as soon as tolerated.
9. Measure the fluid intake and the urinary output; examine the urine daily for albumin.

Should profound slowing of the heart result from Veratrum or any other similar vagal stimulant, 1 mgm. of atropine injected intravenously may give dramatic and life-saving relief in such an emergency.

Atropine is the only known antagonist of real value in the treatment of profound toxic symptoms produced by certain poisonous mushrooms which contain the alkaloid muscarine. Muscarine strongly stimulates certain organs controlled by parasympathetic nerves, which action accounts for the constricted pupils, salivation, bradycardia, cramps, sweating, skeletal twitchings and other less important deviations from the norm. All of these actions can be nullified by atropine, 1 mgm. intravenously, or 1 to 2 cc. tincture of belladonna hypodermically. The value of atropine in this parasympathetic type of poisoning, a real emergency, is especially significant today when such powerful drugs as acetylbetamethylcholine (mecholyl), carbaminoylacetylcholine (doryl) and prostigmine are being used more widely for relief of hypertension, paroxysmal auricular tachycardia, megacolon, myasthenia gravis, etc. Never should mecholyl or similarly potent cholinergic (parasympathomimetic) drugs be injected without having immediately available a solution of atropine sulfate, 1 or 2 mgm. per cc., drawn into a syringe to be used at once in case profound bradycardia results from mecholyl administration.

Another emergency use of atropine which seems justifiable on the basis of experimental evidence is intravenous administration in acute coronary attacks. The coronary relaxing effects of papaverine and theophylline with ethylendiamine (aminophylline) are well known, but less well accepted are the antispasmodic effects of atropine on the coronary vessels. The late Sir Frederick G. Banting of Toronto was able to prevent the severe coronary damage which acetylcholine produces when injected into dogs by preliminary injection of atropine. Morrison and Swalm[12] could precipitate a typical attack of angina pectoris by blowing up a rubber balloon placed in the esophagus or stomach of known anginal patients to 40 or 60 mm. mercury pressure. More dramatically still, these attacks could be prevented by preliminary administration of atropine. Thus one appreciates the modus operandi of gastric distention (full meal, "gas on the stomach") accompanied by slight exertion in precipitating an attack of angina pectoris. Also one realizes the value of atropine prophylactically as well as in the acute attack. We have been constantly advocating, since the publication of the fine work of Morrison and Swalm, the judicious trial of tincture of belladonna (or atropine) in coronary disease, acute or chronic. Favorable results should be forthcoming when it is generally appreciated that damaged cardiac tissue, myocardial or vascular, might reflexly, through vagal nerve components, cause coronary constriction which might be aborted, prevented or diminished by sufficient atropinization.* In experiences such as these it behooves one

[12] Morrison, L. M., and Swalm, W. A.: *J.A.M.A.*, **114**:217, 1940.

* Just before going to press an excellent article apropos to this subject appeared in the *J.A.M.A.*, **117**:2019, (Dec. 13) 1941, in which Drs. G. V. LeRoy and S. S. Snider of Chicago report that in dogs with experimental coronary occlusion, 0.1 mgm. atropine per kilogram of body weight resulted in a 35% mortality rate; theophylline and theobromine resulted in a 25% mortality rate, and when the theophylline with ethylendiamine was accompanied by atropine therapy a 30% death rate resulted. The authors, in pleading their case, state: "Naturally not all patients who are so treated will survive; but if the same ratio observed in dogs should hold for human beings one of three will die, instead of three of four. The reduction in mortality is certainly a worth-while advantage. It is hard indeed for us to escape the conclusion that many victims of heart attacks whom the coroner's physician sees would not have died had atropine and one of the xanthines been given and complete bed rest insisted on soon after the onset of the symptoms." This work is well worth anyone's careful reading.

to be constantly on the alert for "new indications for old drugs rather than to be ever seeking new drugs for old indications," important as the latter endeavor may be.

Coronary spasm may also result from heroic intravenous usage of pituitrin for any reason whatever, notably when employed in obstetrical patients with coronary disease or in patients suffering from acute hypotension, surgical, anesthetic or otherwise. The problem of shock and its treatment warrants detailed study, but suffice it here to state that serious danger attends pituitrin injected intravenously because of the very great probability of acute coronary constriction. Should it occur, epinephrine, 0.5 cc. of 1-1000 solution or ephedrine sulfate, 5 or 8 mgm., injected intravenously, are the agents of choice in this emergency. Repetition of this type of antagonistic therapy may be indicated, depending upon duration of spasm produced by pituitrin.

Profound uterine spasm or tetany induced by too early obstetrical use of pituitrin may likewise be relaxed by epinephrine intravenously. One of my former preceptors, Dr. C. Wesley Sewall, of Boston University, once emphasized this action of epinephrine and volunteered the statement that "its rationale is unknown." As pharmacologists we acquiesce but nevertheless accept this treatment, supported by similar observations of several recognized obstetricians.*

Time forbids further peregrination in this interesting field of such import to us physicians. It is my sincere hope that we have gained a bit of insight into the fascinating problem of rational therapeutics. By knowing the basic pharmacologic actions of important drugs, one can anticipate with understanding the probable effects to be manifested by various therapeutic agents. Our treatment can be rational, especially in many common emergencies.

* Author's note prior to publication: Drs. D. D. Bonnycastle and J. K. W. Ferguson, of Toronto, recently published results in the *Journal of Pharmacology and Experimental Therapeutics*, **72**:90, 1941, indicating relaxation of pituitrinized uterine strips of pregnant rabbits, suggesting a rational basis for its clinical use as stated above.

ABSTRACTS

INSTRUCTIONS AS TO THE CARE OF BABIES IN EVENT OF AN AIR RAID

Instructions as to the special care of babies in the event of an air raid, based in part on the experience of London and other English cities, were made public today by the American Committee on Maternal Welfare.

In view of the general possibility of air raids on American cities, the committee regards it as important that American mothers understand and prepare well in advance for the task of protecting their babies. The committee is composed of the leading medical, public health, nursing and hospital organizations of the country and can thus speak with authority.

Aside from the immediate need of shelter from bomb explosions, the most important fact to keep in mind, the English have learned, is that the mother's mental attitude is baby's best guarantee against air-raids.

"However frightened you may feel," the committee quoted from instructions issued by the British National Baby Welfare Council, "keep outwardly calm and unflurried, so that the child's confidence in your own protectiveness may not be shaken.

"Never speak of the raid in the child's hearing if you can avoid it. Mental impressions are formed very much earlier than most people realize. Many of the problem cases among grownups of the present day owe their condition to their parents having talked continually in the presence of the children about past and future air-raids, about their own terror, and the effect of this on the child. The following words are as true today as when they were written thousands of years ago: 'In quietness and confidence shall be your strength.'"

When the raid signal sounds, the first move should be in the direction of the nearest shelter. If there is no shelter, take the baby to the safest room in the house, or to a closet under the stairs or under a table or bed, so that he may be protected from flying debris, which presents the most frequent danger.

Take with him garments enough to keep him warm according to the season, a basket or pillow on which he can lie, a first aid outfit in case of need; a toy to amuse him; his bottle of milk and bottle of water, together with extra diapers and related equipment.

The baby's ears should be blocked with cotton wool to minimize the effects of concussion, leaving plenty outside so that it may be easily withdrawn afterward.

If the raid should come while the baby is away from either house or shelter—for an airing in the park, for instance, find the nearest wall or ditch, however low, place the baby on the ground beside it, with pillows from the baby carriage or a heavy coat under and over him, and lie down beside him.

The problems of baby and mother in wartime and their safety and well-being under all circumstances, will be discussed by experts from all over the Americas at the second annual Congress on Obstetrics and Gynecology, sponsored by the committee, in St. Louis, April 6 to 10.

PRONUNCIATION OF SULFANILAMIDE

The recommendation of the Committee on Nomenclature of the Council on Pharmacy and Chemistry of the American Medical Association regarding the pronunciation of the words amide, sulfanilamide and sulfathiazole has been accepted by the Council, it reports in *The Journal* of the Association for January 31.

The Council reports that "the committee recommended that the word amide be pronounced with a long "i" (amide), this being preferable both because of the final *e* and the analogy with chloride and iodide. For the same reason the committee held that the preferred pronunciation of sulfanilamide should be sulfanilamide with the major accent on the antepenultimate syllable, il'.

"In agreement with the principle that English accentuation is recessive, it is believed that the preferred accent would be on the syllable thi in sulfathiazole."

It is explained that these pronunciations are in harmony with those recommended by the American Chemical Society.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association
Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis....Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend....Dec. 31, 1944

APRIL, 1942

Editorials

CANCER

The term "cancer" is in this discussion used in the broad sense, meaning any malignant growth, rather than in its more specific sense histologically. Cancer caused 4,409 deaths in Indiana last year—an all time high. And, as a cause of death it ranked third, in the following order: heart disease, apoplexy, cancer, Bright's disease, pneumonia, tuberculosis and so on. In the United States 164,906 deaths were caused by cancer in 1940, out of 1,417,269 deaths from all causes. According to statistical studies this malady is on the increase. Evidence supports the idea that the increase is real rather than apparent. One of the more important reasons given for this increase is that more people live to attain the age of forty or beyond, the age-group most often afflicted. There is a striking parallelism between this and the degenerative diseases. From the above it is noted that infectious diseases, as causes of death, have been pushed downward in the numerical scale, whereas degenerative diseases, such as those of the vascular system, and cancer have assumed places at the top of the list. At present cancer ranks second as a cause of death in the United States, causing approximately one death in ten. This ratio in spite of the newer diagnostic aids, newer methods of treatment, and the campaign by medical societies and various other agencies for the education of the public. It is well to bear this in mind when overoptimistic literature is handed out. The question as to why all these efforts have not been more successful should receive some consideration.

A most effective method of controlling cancer would be to control the causes, or to eradicate them. But as yet the cause of cancer has not advanced beyond the state of hypothesis and speculation. The preceding statement should perhaps be modified for certain lesions are benign at the time of diagnosis, yet are known to be precancerous, or to undergo cancerous change. Elimination of these, by appropriate means, would control a small group of cancers. However, the statement "There is no known means of preventing cancer" is essentially correct.

If cancer, in the light of our present knowledge, cannot be prevented, then treatment must be deferred until the malady not only has occurred, but has caused symptoms, or otherwise attained attributes which make it possible to recognize its presence. The successful management of cancer, therefore, depends upon the following factors:

1. Location—that is, whether it interferes with normal physiology and function sufficiently to cause symptoms which will allow an early diagnosis before hopeless spread has occurred. Too often a small lesion causes little inconvenience, metastasizes very widely, and becomes hopeless before its presence is even suspected.

2. Accessibility—that is, whether its location is such that removal or successful treatment is possible. Some cancers are situated either in or about vital structures, so as to render effective treatment impossible.

3. Character. Some cancers are so malignant that cure is doubtful regardless of the stage at which treatment is instituted. Others are so benign that cure is easy even though late treatment is instituted.

Many other factors, such as the age of the patient, at times possibly race, gestation, occupation, habits, et cetera, influence the success of management.

The program to the layman presupposes that an intelligent concept of cancer will cause him to seek treatment at the first symptoms. In many instances this is fallacy. To support this statement, witness the patients who know almost to a certainty that they have cancer, yet fear to consult their doctor about it. Fear is an emotional attribute and not an intellectual one, and is in many instances the stronger of the two. It has also been observed that, on the average, doctors as a group present themselves for treatment no earlier than the layman. In a recent study, data was obtained indicating that some patients had symptoms of cancer a year or more before entering the hospital. In one series there was a delay on the part of the doctor of four and one-half months, and in another series there was a delay of six months before a diagnosis was made.

There is, therefore, the limitation of diagnostic acumen and methods. Fortunately, these methods have been greatly improved in the past decade, but are still far from all that could be desired, as evidenced by the above data. Therefore, even

if the cancer bearer would seek care, with all the diligence he has been advised to exercise, and doctors did their very best, many cancers still would not be cured. The statement "Cancer is curable," is true only in a relative sense. It would be better simply to state "Some cancers are curable and other cancers are not curable." It is very difficult to harmonize the statement so often made, "Cancer is curable," with the 4,409 deaths from cancer in our state last year, an all time high, or that 21,293 more deaths occurred from this cause, in the United States, in 1940 than in 1936. The curability of cancer is relative in another sense: there is the three-year cure, the five-year cure, and so on, which, although not perfect, is nevertheless quite important. Regardless of the philosophy doctors might have regarding the cancer problem, any program for the education of the public should be designed to incorporate the above facts.

Physicians must be "cancer minded" in order to institute proper diagnostic procedures, often at a time when there is no "cancer specificity" to the symptoms. In early cases all the acumen and known laboratory aids are necessary for a diagnosis. At times results are far better than thought possible, at other times worse, but on the whole there is enough chance for success to make every effort worth while. It is necessary for the doctor to maintain a wholesome interest and optimism in this field, but it is also desirable that he have a realization of his shortcomings in the management of the cancer problem. This attitude is also good for the public. Nothing contributes so much to trust and confidence on the part of the public toward the doctor as frank statements of truth. In this connection, the ability of the doctor to accomplish a little more than expected, instead of a little less, is very much to the point.

MEDICAL ENLISTMENTS

We have been more than a bit disappointed in the number of enlistments by our younger medical men in the Army Medical Corps. We say *young* men because the Procurement and Assignment Service has asked for the *young* men first; the medical man under thirty-six long since was requested to offer his services—too few of this group have done so. Two chaps of our acquaintance only recently were ordered to Fort Harrison for examination; they had enlisted several weeks previously. On their arrival at the Fort the medical officer in charge seemed somewhat nonplussed about it; it was apparent that they had made but few such examinations of medical men, while all along we had presumed they were doing a dozen or more such examinations every day.

This would indicate that relatively few of our younger men are accepting the "invitation" to become medical officers, since local applicants are referred either to Billings Hospital, or to Baer Field at Fort Wayne. This should not be the case; as a matter of fact Major Samuel F. Seeley, head of the Procurement and Assignment Service, as well as General Lewis Hershey, head of the Selective Service, have made it quite clear that the younger medical men are wanted. They even have intimated that the same younger medical men will be more than *urged* to accept an "invitation" to become a member of the United States Army Medical Corps. Much of this delay is, of course, due to a misunderstanding of the present situation. It is unfortunate that the enlistment blank recently published in practically every medical magazine in the country was "premature." The official *enrollment* blank which will be sent to every physician in the country in the near future will materially clear the matter, and we strongly urge that these blanks be completed and forwarded to Washington on the day of their receipt. No matter if you are but twenty-one, or if you are one hundred and twenty-one, Uncle Sam wants to know what *you* can do to help win this war, and it is up to each individual to give that information immediately.

We hear a few malcontents carping about the war, about being dislocated from their practice, some even going so far as to declare the whole thing unfair and undemocratic. That is not our doing; we did not make this war; but we are *in for the duration;* we have been assigned a definite duty in the war; we have been *requested* to perform that duty, and our opinion is that if we fail to comply with that request we will be *told* what to do!

There is no need, however, to await the *enrollment* blank; a mere statement on your own letterhead, addressed to Major Samuel F. Seeley, Procurement and Assignment Service, 601 Pennsylvania Avenue, Washington, D. C., to the effect that you want to sign up will receive immediate attention. Let's go before we are told to go!

AGAIN, DEFENSE BONDS

Defense Bond rallies, at which "guests of honor" are governors, movie stars and what not, are in vogue it seems. There is the beating of drums, loud hurrahs and huzzas, the tom-toms go into action and the "brass hats" display their oratorical powers—all resulting in the sale of hundreds of thousands of these bonds, of varying dimensions. This may be the "American way" of doing things, but to us it seems that the sale of Defense Bonds is a purely personal problem; each individual must decide for himself what *he* is going to do about it.

There can be no question about the purchase of Defense Bonds, for they provide the quickest means of raising ready cash. It is but a matter of hours after you have laid down the cash for these bits of paper until your money is in the Treasury Department, in Washington, being paid out for war materiel. Bonds will buy bullets, and if there is a crying need for anything right

now, it is more and yet more bullets, for bullets are the most effective means of *killing off* the barbarous fiends who seek control of this and all other countries.

We all are going to do without a lot of things we once thought essential to our well-being; even now we are to cut down on sweets and certain other items that we formerly thought necessary every day. We are going to use less gas—doctors, of course, will have to make calls, but their pleasure trips will have to be cut out. We *could* cut down on cigarettes and cigars; we *could* save a few dollars on a suit of clothes—looks like we are going to do that very thing, too. There are literally dozens of things that we can do—and not do—all of which will save a bit here and there; and these bits, put together, will buy a bond—that bond will buy bullets—and a sizeable number of bullets, properly dispatched, will *kill* a lot of Japs, Nazis, Fascists, and a lot of other similar scum of the earth.

We have noted another thing about bond-buying; when we have attached our name to the dotted line and the Titian-haired, good-looking young dame at our bank hands us the bond, we walk out of the bank with the head a bit higher, the step a bit more elastic, and the air seems a bit sweeter and clearer—we've done out bit for the nonce. Buy Bonds, and experience this delight.

OUR PART IN CIVILIAN DEFENSE

Civilian Defense is a nation-wide project, one that rapidly is enlisting all thinking people. The program is so vast that one can hardly conceive its extent. In this program medicine has a most important role—one that will, of course, be met in the same manner as we have been meeting the various emergencies that have confronted us from time to time.

In our own Hoosier state we have special problems, for here we have vast industries—all lending their every effort to war production. We have powder-making and powder-loading plants; we have airplane engine factories, and more factories are being planned and constructed. The great Middle West is a beehive of war industry.

All these things contribute to a change in our method of living. Communities that a few years ago were the centers of Hoosier farm life are now veritable dynamos of industry, and thousands of former residents of these communities are now feverishly engaged in war production. Then, too, we have the influx of thousands of workers from other parts of the country—all of whom are experiencing no little change in environment. These changes are often conducive to a method of living far different from that hitherto carried on, and it is this change that brings about a different state of health.

The medical profession is expected to meet these emergencies and to have a proper solution of them; we can be certain that this will be done. But there are other considerations, some of them of major importance. In time of war there is always the possibility—we almost said probability—of some great disaster. Our enemies already have directed offensives at many sections of the country and in our maritime possessions. It is to be expected that, for some time at least, these offensives will be on the increase, and that they probably will strike nearer us. It is these things that we must be prepared for. It will not suffice to say that the medical profession always has met such emergencies as may arise; in this instance we must be *prepared*, and that preparation means a lot of thinking and planning.

In certain sections of our state we have great steel mills, oil refineries, and railway systems—all of vital importance to our war program—and it is in these sections in particular that disaster might well be anticipated. Practically every city in these industrial sections began a program of Civilian Defense long ago; in some places these plans are complete, in others they still are in the "talk-it-over" stage. True it is that in these cities we have hospital facilities, but mere hospital facilities will not suffice. We know of no Indiana hospital that is adequately prepared to care for scores of people injured during a successful sabotage in a large industry employing thousands of men, or for like scores injured and maimed during a bombing. You may say that these things are impossible in Indiana. They are *not* impossible in Indiana; these very things may happen at any place and at any time.

Many plans have been evolved for such contingencies, the most practical coming to our notice being that of the establishment of first-aid stations in certain sections of a city, and the planning of an evacuation hospital—this to be a large ground-floor room, equipped for the reception of casualty patients. Sufficient medical and nursing personnel is to be arranged for, the plan being not to use this place for treatment, but rather as a "receiving center," cases requiring hospitalization to be sent out from there.

Whatever plans may be adopted, it is well to have them fully completed at the earliest moment. The assignment of physicians to the different posts, together with the naming of a chief for each station, is equally important. Hundreds of such plans may never be used, but if the occasion arises, this sort of preparedness will be of inestimable value. Remember Pearl Harbor! Only the ordinary degree of *efficient* preparedness would have averted this tragic happening; let us see to it that Indiana does not have such an unnecessary catastrophe.

ANNUAL CONVENTION
AMERICAN MEDICAL ASSOCIATION
Atlantic City,
June 8-12, 1942

THE REHABILITATION PROGRAM

At the Secretaries-Editors' Conference held in Chicago last November, General Hershey made a statement to the effect that something like two hundred thousand Class 1-B men would be rehabilitated and transferred to Class 1-A. At a later date he was heard to remark that this program had been changed, that the number of such transfers would be materially increased. It now appears that his predictions were correct, in that a large number of such transfers have already been made.

The medical press has had much to say about the program, the opinion being practically unanimous that such a program should be carried out. At the meeting of the National Conference on Medical Service, held recently in Chicago, there were numerous discussions of the problems presented in this rehabilitation program. Among the more notable discussions of the subject was that by Colonel Samuel Kopetzky, of New York. "Sam," as we long knew him before he acquired his present official title, has had an unusually active career in the various fields of medical economics; few physicians have devoted so much time to the study of the problems as he has, and there are few who can intelligently discuss these problems.

At the National Conference he is quoted as having said "The army cannot use a man who cannot withstand the rigors of military service, nor does it want to induct any man who might become a liability. . . ." He then discussed the number of rejectees, stating that in the area of New York City these rejections amounted to 28.64 per cent. These were flat rejections; an additional 32 per cent were classified for limited military service. He also noted that as the age increased, so did the percentage of rejections, and observed that in the more recent registration lists, with the age group advanced to forty-five, this percentage would still be increased.

He also directed attention to the fact that even after the Government had offered to have correctable defects remedied, but 5.9 per cent of the group personally surveyed had taken advantage of the proffer. The suggestions of Colonel Kopetzky, together with the revelations of a limited survey made in his own territory, leads to the observation that Indiana might well try such an experiment. A recent number of the *Journal of the American Medical Association* advises that Virginia and Maryland are even now engaged in such a study, and the outcome will be watched with much interest. Further, the move now on foot, that of replacing able-bodied men now engaged in military, clerical, and other non-combat services—with men who have some physical disability, but are able to carry on—is one with great possibilities.

Indiana Medicine has plenty of military jobs on its hands at the present time, but it might be well to consider some of the problems of rehabilitation and see what can be done in our own state.

Editorial Notes

At last, final Volunteer Enrollment Forms are on the way. Every physician in Indiana should fill out and return the form as soon as possible after it is received.

The St. Joseph County Medical Society continues to do a good job of radio broadcasting, and the local papers are generous in the space accorded these talks. Only the other day there was a broadcast on the subject "Doctors are Human." It contained a lot of right red meat, just one of those chats that would appeal to most listeners.

Union Hospital, at Terre Haute, is to be added to the ever-increasing list of Indiana institutions providing blood bank services. Dr. Alexander Cavins heads the committee, which has arranged an admirable set-up for the bank. Like other blood bank services, it is their plan to conserve blood plasma for local use, as well as to furnish the Red Cross with a considerable supply.

The first "war class" of the Indiana University School of Medicine has been selected, this group to start its work on May eleventh. They will complete their course in December of 1944, instead of June, 1946, saving a year and one-half in curricular time. This plan was adopted to meet the need for more physicians and surgeons, as a replacement for the thousands who are or will be in Service. The larger medical schools throughout the country have adopted similar plans.

"Bond Sunday"

"Bond Sunday"—April twelfth. Registration hours—noon to 8:00 P. M. All Hoosier residents are asked to go to their usual polling place at this time and register their indication to participate in the campaign for the selling of Defense Bonds. Even though you already have bought bonds and plan to continue doing so, you are asked to register. Each registrant will be given a placard to be placed in the window of his home alongside the Red Cross membership emblem, or perhaps alongside the Service Star which indicates that a member of the family is actively engaged in the war. We urge every Hoosier physician to go to his polling place, there to register his intent to continue his support of our country at this time when it needs that support.

Sunday, April twelfth, noon to 8:00 P. M.

The Vanderburgh County Medical Society has a new committee, whose job it is to see that Defense Bond sales are made to members of the organization. Dr. Ralph Wilson is general chairman in charge and has named five "teams" for the project, each team consisting of five members with a captain at the head. This seems to be an excellent plan, one that will insure every member of the society being personally called upon in the campaign. Doctors never are "slackers" in any public-spirited project, although it occasionally has been found best to make personal solicitations in such matters.

Vacation or Defense Bonds? Some physicians we know already are debating that question—some already have decided in favor of the bonds. One *could* do both; that is, one *could* cut a week off his usual vacation time and invest the difference in bonds. But, however you may decide the question, do not entirely overlook Defense Bonds, now one of the greatest needs of the Nation. A few dollars invested in these securities by *every* Hoosier physician, once each week or month, will amount to an astounding sum, and "big money" is one of Uncle Sam's crying needs these days. Defense Bond money, too, is "ready money." Buy 'em!

During the week of February sixteenth to twenty-second, the Protestant Deaconess Hospital at Evansville, Indiana, celebrated its Fiftieth Anniversary with a rather elaborate program. Each day of the celebration week the program was broadcast directly from the hospital over a local station, speakers being representatives from the Evansville churches of various denominations. Among the speakers on the program during the week were Dr. C. N. Combs of Terre Haute, Dr. Malcolm T. MacEachern of the American College of Surgeons, and Rev. Arno H. Franke, president of the Board of Trustees of the Deaconess Hospital at St. Louis, Missouri.

The *Indianapolis Star* hits the nail squarely on the head when, in speaking of the new Welfare set-up, it says: "There are many families receiving social security aid who will be scrupulous in using such funds for their intended purpose. Others, however, will waste the money and let the doctor whistle for his pay. That type of mooching was demonstrated all too frequently during the period of promiscuous handout during the depression. Families on relief spent the money for pleasure and the grocer who trusted them waited vainly for payment of the bill. Some of the more arrogant gimmes openly boasted that they could not be forced to pay their bills. Human nature is not always mellowed by relief doles. The present medical-aid program is a direct encouragement of the deadbeat."

Attention is again directed to that annual little pleasantry, the payment of dues. Official delinquency begins, so far as the State Association goes, as of February first, but these delinquents continue to receive THE JOURNAL until June first. The dues payment at headquarters shows a marked improvement over former years, yet there are many who seem to have overlooked this important matter. It also should be remembered that as of February first one forfeits his right to the medical defense feature unless his dues are paid by that time. If you do not have your 1942 card, better contact your local secretary.

The fact that physicians are deemed a "privileged class" in the matter of tire allotments seems to have its complications. According to a press dispatch, an Indianapolis physician had applied for new tires for his car. Appearing before the board, carrying with him the official inspector's certificate to the effect that his car really needed new rubber, he was asked as to the number of cars in his family. He replied that he and his wife each had a car. Then came the query as to the condition of the tires on the wife's car, and the answer was to the effect that these were O. K. Then came the ukase, "Use your wife's car!" Thus is answered the question that has often been raised as to the "priority" in physician's families in which two or more cars were owned. Seems that, after all, the physician is a "single car" operator and gets his tire rationing accordingly.

For the busy physician, life continues to be just one thing after another—every little while some additional duty confronts the profession. Many of us feel that we have enough to do these days in trying to keep up with the tax situation, as well as trying to earn enough money to pay said assessments. Time was when a physician had little "book work"; he kept a daybook and a ledger. On occasion, if he ever got around to it, he sent out some statements. Today there is a decided change in the picture; he has to be most meticulous in his records, case records as well as those having to do with his financial picture. Now comes an additional lot of record-making, having to do with the welfare set-up. The local system has a "referral doctor," to whom all cases requiring treatment are sent; he decides as to what treatment is needed, *then sends the patient to the physician whom the patient may choose.* Next is the treatment, then the reports; we do not recall when we have had so many sets of papers to be filled out, but if this is not done there is no pay for the services. A local manufacturer some time ago closed his plant because he found it too expensive to employ expert help to keep his tax-records; wonder how soon some of our profession will begin an outcry against the ever-increasing "book work" now deemed necessary to a busy practice!

Considerable unrest is manifested by numerous drugless practitioners over the state, because of the activity of the Indianapolis Better Business Bureau. They hit hard when they do hit, and their activities are by no means limited to any one section of the state. One of the results of this campaign is the filing of several "damage suits" against the Bureau and its manager, T. M. Overley, by several of the drugless folk. The fact of the matter is that a drugless practitioner who limits his work to the field in which he is licensed should have no worries about being molested. It is the group which goes far afield, in too many instances practicing general medicine, who are being sought out and prosecuted.

In an editorial discussion of the various evasions of the provisions of the new marriage license law, THE JOURNAL took occasion to say "It would seem, therefore, that the enforcement of the *intent* of the law is placed squarely before the local medical societies." The *Indianapolis News*, in making editorial comment on this, says, "Perhaps 'enforce' is a stronger word than needed. If all physicians will observe and obey the spirit of the rules that seek to stop hasty marriages, as well as weddings of those physically unfit, the law will begin to accomplish its purpose". After all, the *News* is correct in that statement; if *every* Indiana physician would observe the *spirit* of the law and would remember—and practice—his Hippocratic oath, there could be no evasion of the law; these evasions being made possible only by a connivance between those issuing the licenses and some physicians who value a dollar higher than the ethics of their profession.

War-time restrictions have taken from us many of the so-called "luxuries"; as the war goes on more and more of these things that had become commonplace in our method of living will be taken from us—we rather expect that. However, there are other luxuries, of a sort indulged in by too many folk, that, according to Editor Rice, February *Bulletin of the Indiana State Board of Health*, might well be dispensed with. He speaks of the luxury of "race and class distinction," the "anti-Negro, the anti-Semitic" intolerance evinced by too many of our people. He goes on to say that we need every race, every foreigner, every person living with and among us in these times. Too, we can dispense with the luxury of idleness, the luxury of strikes and lockouts, the luxury of snobbery—all these are too deeply rooted in the minds of certain groups—things without which we can get along very nicely. It is a well-written comment on some of the things that hinder the winning of the war, and it will be read with much profit to any American.

A news-service clipping describes a social gathering in one of our larger cities, the meeting of an organization called the "Round Table." It seems that at this meeting the hostess chose to discuss "socialized medicine," and from the press report it would seem that the subject was fairly well covered. But we wonder where these folk get their material; is their local medical society active to the extent that it can—and does—furnish the group with reliable propaganda? Something to think about!

Well, we finally got our check off to Uncle Sam for the Federal Income Tax assessment, and drew a breath of relief, but not for long. With the coming of April we find a form from the Gross Income Tax Division, Indianapolis, asking us to do some more figuring and paying. Take a few more days of respite, then tackle the local and state tax program, which comes along as of May first. Also, and it is quite important to remember this, along in May we have the little note from the Internal Revenue Collector, advising us that it is about time to make the narcotic inventory and pay our little dollar for a new permit. Oh, hum!

The National Association of Retail Druggists offers a rather unique idea relative to certain tax exemptions. Basing their statement on the fact that the health of the nation is an important military factor, they set forth the claim that "health expenditures" should be tax exempt. It is, of course, a recognized fact that the American people during the next few years, at least "for the duration," will be denying themselves of many things. Their tax rate will be so advanced as to make this necessary. Then, too, with the various restrictions now existing and presumed to be in the offing in the matter of articles long presumed to have been necessities but which will no longer be available, our usual mode of living will be seriously changed. But health is a necessity; without it we cannot carry on to the efficient degree which is expected of us in time of war. We must do all within our power to preserve a normal state of health, and in so doing we will need some expenditures. Hence, it would seem that the claim advanced by the National Association of Retail Druggists is not wholly without some basic foundation. Their bulletin goes on to say, "It is a strange quirk of human nature that when people are forced to economize, they start by neglecting their health." Medical men know how true this is! We see it in our daily routines, cases that too long have been neglected—all because the money was needed for other purposes. At least the National Association of Retail Druggists has given us and the tax-making officials something new to think about.

Child Health Day—May First

A notorious violator of the State Medical Laws, a chap who holds three drugless licenses, has been cited to appear before the Indiana State Board of Medical Registration and Examination to show cause why his permits should not be revoked. Of course, he was much perturbed about it, got himself an attorney and all that sort of thing, but continued to worry about it—probably realized that they had enough evidence to hang him! Then he thought of a new expedient, that of going to a regularly licensed physician for help. He suggested to this physician that if the suit was withdrawn he would be glad to give up two of his permits. And, of all things, that physician went right to his county medical society officials urging such a program! Of course, no such action was taken; the offender will have to stand trial and take his medicine. But something should be done toward giving the physician a bit of strafing—at least he should be soundly reprimanded. Just when we are beginning to make some headway against the "irregular activities of the irregulars" is no time for a member of the regular profession to pull this "sob stuff" in behalf of a notorious offender.

Relative to a recent ruling by the Attorney General of Indiana to the effect that an order issued by the Indiana State Board of Health, establishing a minimum standard of time for returning the results of serological examinations for syphilis to applicants or to physicians, was illegal, Dr. John W. Ferree, state health commissioner, has advised the directors of all private serological laboratories approved by the Indiana State Board of Health, as follows:

1. That nothing in the conduct of these tests should be contrary to the best interests of the public. Since physicians are bound by medical ethics to work for the best interests of the public, the laboratory directors have a moral obligation to do these tests in such a way as to assure a high quality of work.

2. That in the interest of efficiency and quality a single set-up be run each day rather than performing tests at hit-and-miss intervals throughout the day upon demand. This is also recommended because of the poor economy inherent in the performance of tests done in single lots from the standpoint of personnel, time, and materials wasted, and the consequent necessity for higher charges.

3. That no laboratory enter into any agreements for the providing of rapid laboratory service, that would result in a charge above the regular rate to the marriage license applicant. Such agreements and procedures will only reflect discredit upon the laboratory and the medical profession. Undesirable regulatory legislation would eventually result.

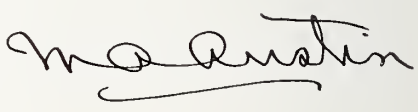
Living costs decidedly on the "up"; drugs and supplies mounting to dizzy heights in many instances; rents increasing; automobile operating costs mounting—all these things affect the pocketbook of the doctor. The merchant and the manufacturer boost their prices, but the physician goes along with the same fee bill that has been in vogue twenty years or more. What to do about it? Some of our county societies already have tackled the problem, some already have increased their fees, others are considering doing so. While we believe these problems are purely local and not a matter for consideration by the Indiana State Medical Association, we do endorse at least a study of the problem. All labor trades—and we are called just that by a Federal Court—have materially increased their incomes. As we have said, mercantile institutions have increased their sales-prices; physicians, generally speaking, have not done so. It is worth some serious thought.

"Looks like a war meeting this year," so said someone to us the other day, and it will be just that—referring to the annual convention at French Lick, September twenty-ninth inclusive of October first. Not that the entire program will be devoted to war subjects, but there will be the "war tang" to all the proceedings. This meeting will afford an opportunity for a respite from the strenuous task that now confronts every Hoosier physician; two or three days in the foothills of the Cumberlands will reinvigorate the tired mind and body. Normally, conventions get most physicians "down," due to the rush and hurry of convention atmosphere, but at French Lick you just naturally "take things easy." There are no long treks to distant meetings and committee conferences, no accompanying of the "women folk" on shopping tours; everything, save "Brown's," is under the one roof. A preview of the scientific program indicates a better-than-usual presentation of the things that interest all physicians. Letters from section chairmen indicate a desire to make every program the best in our long history. Now about those reservations, French Lick Springs Hotel is amply able to care for the large attendance, but most of us find it advisable to make early reservations; in fact, the veteran attendants at French Lick meetings have developed a liking for a certain section of the hotel and have made their reservations accordingly. As we often have said, it is a pleasure to walk up to the hotel registration desk, sign your name on the dotted line, and immediately be assigned to your quarters. Late September is an ideal time to visit southern Indiana; you will need a few days from the increasing grind of your practice—better make that plan right now, write the hotel for your reservations, and join in making this "war meeting" one of the best ever.

President's Page

PEREMPTORY

Medical practice is facing many changes in the near future, and none of them offer more serious problems than that of the young doctor who has entered the Army immediately after his internship and enjoys a salaried job for an indefinite period. Those who are dismissed after the emergency, and others who find Army life desirable, will give serious thought to continuing in some kind of a pay cheque position rather than enter competition in private practice and face the slow process and long road that lead to a respectable income and security. Just as in many of the congested areas, especially along the East coast, where a survey showed that the majority of the doctors would welcome any form of Government intervention with health insurance in the hope of increasing their income, *so do we have more to fear from young doctors themselves fostering socialized medical practices in the next decade than from any political or lay group.* And another fact is that after three or four years as an Army doctor, one's habits, disposition and training make a return to civil practice almost impossible. Their contacts are entirely different; in the Army the patient has to "take it and like it"; he is told what to do and he has to do it; his freedom of speech is limited to saying, "Yes, sir," when he might possibly want to say, "I'll call another doctor." In the Army the patient is a human guinea-pig, surrounded by every possible protection for his safety, and must accept the standardized practices in vogue, from whatever doctor chance may have assigned to him. In private practice a personality that arouses confidence must be developed, and one's complete success must be measured by securing the willingness and cooperation of the patient, which is never done *by giving orders.* Listening to the family suggestions and siding in with grandma occasionally gives a psychologic boost which often is needed far more than a physiologic one. Unfortunately, I speak from sad experience. *Interns from hospitals having only charity patients are often as handicapped when they start in practice as Army doctors.* I had two and one-half years of little but charity work. I remember the typhoid ward and the two fellows who had perforations. I remember broken legs and broken backs, pneumonias and septicemias, appendicitis and gall bladder cases *only as entities harboring pathology.* I remember the big Irish half back on the Chicago Athletic football team, who had the first appendix operation in which I assisted John B. Murphy, but when I left the hospital *I could not recall the name of a single individual whom I had ever cared for.* When I entered practice, I had a succession of patients in good families, who never called me a second time, because if they were sick at their leg or their belly, I never got above their leg or their belly in attending them. I would have made a good *purdah* doctor in *India,* where the women are covered with a sheet, the patient never sees the doctor, and the doctor never sees any part of the patient save the sick spot seen through a hole in the sheet. *Every hospital should, during their first three months, have a course for their interns devoted to a discussion of the personality of a patient.* I owe more to Dr. Lindy Fussell, of Markleville, for my success than I do to the teaching of John B. Murphy. Dr. Fussell was married but had no children. He owned a big farm and a lot of race horses. Every child in Adams Township went to him as if he were their dad. The sore leg or the belly ache was the last thing he considered when we went to see a patient. Dr. Fussell was a part of every family gathering, every marriage and every death, as well as every birth. He called every one by their first name, and when they said, "Hello, Doc," it was said in such a way that it meant, "He's my best friend and the best doctor on earth, for I trust him with my life and the lives of my family." And were I sick, his twinkling eyes and old gray whiskers would be the most welcome sight I could wish for.



PROCLAMATIONS BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

Cancer Control Month

WHEREAS Public Resolution No. 82, 75th Congress, approved March 28, 1938 (52 Stat. 148), authorizes and requests the President to issue annually a proclamation setting apart the month of April of each year as Cancer Control Month, and to invite similar action on the part of the Governors of the several States, Territories, and possessions of the United States; and

WHEREAS such Public Resolution requests that such proclamation invite the medical profession, the press, and all agencies and individuals interested in a national program for the control of the disease of cancer, by education and other cooperative means, to unite during the month of April in a public dedication to such a program and in concerted effort to impress upon the people of the nation the necessity for such a program; and

WHEREAS through the National Cancer Institute of the United States Public Health Service, the Federal Government is leading the way in advancing research, in promoting effective treatment methods, and in advocating the provision of adequate facilities for cancer patients, as are the several states which have adopted programs for the control of cancer, as well as voluntary groups led by the Women's Field Army which are engaged in a nation-wide educational campaign; and

WHEREAS last year cancer was responsible for the deaths of approximately 152,000 Americans, many of whom were occupying key positions in industries and professions relating to the national defense; and

WHEREAS great improvements in treatment facilities for cancer patients have been made during the past year, with cancer clinics approved by the American College of Surgeons now reaching the encouraging total of 345; and

WHEREAS it now remains for the individual citizen to shoulder his responsibility by informing himself regarding cancer symptoms and the necessity for early diagnosis and treatment:

NOW, THEREFORE, I, FRANKLIN D. ROOSEVELT, President of the United States of America, do hereby set apart the month of April, 1941, as Cancer Control Month, and invite similar action on the part of the Governors of the several States, Territories, and possessions of the United States; and, in order that the American people may become better informed concerning the prevalence of cancer and the effective steps which can be taken to control it, I commend to the medical profession, scientific groups, all organs of opinion, including the press, radio, and motion picture industry, and educators, and civic leaders, the importance of conveying educational information to the American people and of impressing upon them the necessity for eternal vigilance in this fight for humanity. Cancer control must be an important part of our unified effort to make America strong and keep her morale high. This fight can be won only when physicians, scientists, and public health officials are effectively aided by a public opinion that is well informed regarding the few basic factors of cancer control.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States of America to be affixed.

DONE at the City of Washington this eighteenth day of March in the year of our Lord nineteen hundred and forty-two, and of the Independence of the United States of America the one hundred and sixty-sixth.

FRANKLIN D. ROOSEVELT.

Child Health Day

WHEREAS, the Congress by joint resolution of May 18, 1928 (45 Stat. 617), has authorized and requested the President of the United States to issue annually a proclamation setting apart May 1 as Child Health Day:

NOW, THEREFORE, I, FRANKLIN D. ROOSEVELT, President of the United States of America, in recognition of the vital importance of the health of children to the strength of the Nation, do hereby designate the first day of May of this year as Child Health Day.

And I call upon the people in each of our communities to contribute to the conservation of child health and the reduction of illness among children by exerting every effort to the end that before May Day, Child Health Day, children over nine months of age be immunized against diphtheria and smallpox, the two diseases for which we have the surest means of prevention.

IN WITNESS WHEREOF I have hereunto set my hand and caused the seal of the United States of America to be affixed.

DONE at the City of Washington this sixth day of February in the year of our Lord nineteen hundred and forty-two and of the Independence of the United States of America the one hundred and sixty-sixth.

FRANKLIN D. ROOSEVELT.

UNITED STATES TREASURY DEPARTMENT URGES THAT YOU INVEST IN SECURITY FOR AMERICA AND FOR YOURSELF*

The Nation is in danger and we have neither time nor manpower to spare. All the news which we receive indicates one thing very plainly: the next few months may mark the turning point of the war. It is a time when every plane, every ship, every squad, every dollar can play its part.

Every member of our profession is doing his job —the surgeon with the combat troops, the staff member of a base hospital, the medical man assisting a draft board, and the local doctor caring for the civilians. But we must do even more than this. We must help provide money—the sinews of war. We, as Americans, are financially responsible for the planes, tanks, ships, and guns.

From the first, we have known that it would be a tough job to get the money to pay the costs of war. Many of us remember the history of the financing of earlier American war efforts. The War of the Revolution was paid for with paper money, which soon fell to almost no value. The Civil War saw floods of greenbacks and great inflation. The First World War was floated on a sea of bonds which, for a time, declined in value. From each of these experiences we have learned a lesson.

It is possible to secure a part of the necessary money to finance our present efforts from banks and lending agencies, but such borrowing expands the credit structure and contributes to inflation. To the largest possible extent, we seek today to pay as we go. This means that each year we shall pay as much as possible of the annual cost of our war effort out of taxes. The President's proposed program for the fiscal year 1943 calls for approximately nine billion dollars in new taxes. But however staggering may be the idea of such a sum, we must remember that it will be far cheaper to win than to lose the war.

But tax revenues plus bank credits are not sufficient. To obtain the money to push the war effort to the maximum, the Government asks all Americans to lend dollars to the Government through the Defense Savings Program. This is not a lending program just for today, but for every day until the last battle in our march to Victory is won. Every Defense Bond and Stamp is backed by the full faith and credit of the United States Government. The Bonds and Stamps themselves represent individual reserves, just as good as cash in the bank, which can be drawn upon whenever a financial need arises.

The Treasury Department offers three series of Defense Savings Bonds: Series E, F and G. Series E Bonds are "The People's Bonds." They cannot be purchased by banks or corporations, a restriction adopted so that they *will be* People's Bonds. These are "appreciation bonds," meaning that you buy the bond for less than the amount printed on its face. For example, a $25.00 face value bond costs only $18.75. At the end of the ten year maturity period, the Government pays back to you the full $25.00. This is an increase in value of 33⅓ per cent, equivalent to an average interest rate over the life of the bond of almost 3 per cent —2.9 to be exact. It is the highest interest rate the Government is paying anybody today on new securities.

One of the People's Bonds may be registered in the names of one or two owners, or in the name of one person with a second listed as beneficiary. To protect the buyer or owner, it is made so that the one who owns the bond cannot sell it or use it as security for a loan, but the Government will redeem any bond after sixty days from the date of issue.

The smallest of the People's Bonds costs $18.75 but this is not the smallest amount that can be put into Defense Savings. Smaller sums of money purchase Defense Savings Stamps which range in price from 10¢ to $5.00. Money invested in stamps does not bring interest as do the bonds, but when as much as $18.75 has been invested in them, they can be turned in for one of the registered, interest-bearing bonds. People's Bonds may be purchased at any post office and almost any bank. Defense Stamps may be obtained at post offices, banks, many retail stores and other locations. Just look for the Defense Stamps sales window or booth.

Series F Bonds, like the Series E, are appreciation bonds, but these may be bought by corporations and associations as well as individuals. These are twelve-year bonds, which provide a return equivalent to an annual interest rate of 2.53 per cent. The smallest of this series costs $18.50 and pays $25.00 at the end of twelve years; the largest costs $7,400 and pays $10,000 at maturity.

The bonds of Series G, unlike those of Series E and F, are sold at par; that is, the cost is the same as their face value. But also unlike Series E and F, Series G Bonds pay interest semiannually at the rate of 2½ per cent throughout their twelve-year maturity period. Bonds of this series are issued in denominations ranging from $100 to $10,000. Only the Treasury and Federal Reserve Banks issue F and G Bonds, but most commercial banks accept applications for them.

These are the United States Savings Bonds which represent for us an investment in security—for America and for ourselves. Our Nation offers opportunity to every citizen, and in turn calls on every citizen for loyal support. We must provide money for war materiel and equipment which will carry this forward march of battle on to Victory.

* This article was prepared by the Defense Savings Staff, Treasury Department, Washington, D.C.,

WITH YOUR HELP WE SHALL BE VICTORIOUS IN OUR FIGHT AGAINST CANCER

C. C. LITTLE, Sc.D.
Managing Director of the American Society for the Control of Cancer
New York City

The real existence of the greatest national emergency in our history is now recognized by every intelligent American citizen. Along with the vast demands made upon our courage and patience by this situation is a keener realization of our responsibilities to care for the lives and happiness of those unfortunate people who find themselves in personal physical adversity.

The greatest of all these menaces to the health, happiness and life of our people is cancer. The quality of its threat and of its power as a killer is unique. War itself may take a larger toll of Americans in the years to come. Various heart conditions or cardiac disease may do the same thing. Neither, however, will so silently, so grimly, and with such evil power to disintegrate moral stamina, invade the lives and families of our people. We must not lose sight of this fact. No matter what our emergency obligations may be, we must not forget this great continuing enemy of mankind.

Fear, ignorance, and delay are the three allies of cancer which lead to disaster and death. They can be overcome by knowledge of the early signs and symptoms of the disease and of the methods of fighting it. The American Society for the Control of Cancer throughout the country has for years been engaged in this battle. It is making progress. It must not lose the gains made, and indeed must drive ahead. The defeat of fear, ignorance, and delay lies in the adoption of an intelligent and controlled point of view by each individual. These same qualities will contribute to his or her success in fighting whatever the national emergency may present.

The fight against cancer is an ally in the fight against our foreign enemies. The methods are much the same. The qualities appealed to in the individual are similar. The complete victory spoken of by the President in discussing the international situation is just as applicable to our fight against cancer. Both victories can be gained. We must recognize how closely they may be related to one another and must act speedily, courageously, and untiringly to make both possible.

ABSTRACT

"NIACIN" HAS BEEN ADOPTED AS SYNONYM FOR NICOTINIC ACID

A synonym for nicotinic acid, the antipellagra factor in vitamin B_2, has been selected by a committee named for that purpose by the Food and Nutrition Board of the National Research Council, it is reported in *The Journal of the American Medical Association* for March 7. "Niacin" has been selected for nicotinic acid and "niacin amide" for nicotinic acid amide. The Council on Foods and Nutrition of the American Medical Association announces it has approved these synonyms for preparations that come within its scope. Niacin is pronounced with a long "i" and a soft "c" (ni'a-sin).

Discussing the selection of these terms, an editorial in the same issue of *The Journal* says that "The choice of niacin appears to be a happy one. The name is not therapeutically suggestive. Although niacin is not altogether suitable from the purely chemical point of view, chemists and other scientists generally will continue to use the older terms, which to the initiated are unobjectionable. Whether the new names will overcome resistance to the greater use of enriched flour and enriched bread remains to be seen. They deserve to meet general approval."

Discussing the reasons for the selection of these synonyms, the editorial says:

"A poor name is a handicap to the promotion of a meritorious product. The name 'nicotinic acid' for the vitamin so important in the prevention of pellagra has been doubly unfortunate. To the general public the word 'nicotinic' implies too strongly the relationship of this vitamin to nicotine, the chief alkaloid of tobacco often used as an insecticide. The term 'acid' denotes a corrosive substance such as the liquid used in automobile storage batteries. The vitamin called 'nicotinic acid' was first produced in the laboratory in 1867 by the oxidation of nicotine with potassium chromate and sulfuric acid. Later the compound was named nicotinic acid because it had been made from nicotine and it had the ability to form salts. As a laboratory curiosity, which it remained for over seventy years, nicotinic acid was adequately named. From the point of view of those interested in furthering the distribution of foods enriched with this dietary essential, the name has proved unsuitable.

"Following the announcement of proposed regulations for enriched bread by the Food and Drug Administration, a well known trade publication announced the event with the heading 'Tobacco in Your Bread' because nicotinic acid happened to be one of the dietary essentials which is added to the product. Although nicotinic acid was first produced from nicotine, and even now a small proportion of this substance is being produced commercially in this manner, the implication that tobacco is contained in enriched bread is far from true. Most of the nicotinic acid of commerce is produced by the oxidation of beta-methylpyridine, a coal tar derivative. Although nicotine is a toxic substance, nicotinic acid is a vitamin essential to life."

(This is a continuation of the article published on this subject in the earlier issues, a series of which will be continued in subsequent issues.—Editor's Note.)

SOME EARLY AMERICAN MEDICAL AUTHORS

EDGAR F. KISER, M.D.
INDIANAPOLIS

One of the notable contributions to early American Medicine, and one not generally known to the profession at large, was John Conrad Otto's dissertation on hemophilia, published in 1803 in Volume VI of the *Medical Repository*, which was the first medical journal published in the United States. This paper is of such great importance that I quote it in its entirety.

"An account of an Hemorrhagic Disposition existing in certain Families. By John C. Otto, M.D., of Philadelphia.

"About seventy or eighty years ago, a woman by the name of Smith, settled in the vicinity of Plymouth, New Hampshire, and transmitted the following idiosyncrasy to her descendants. It is one, she observed, to which her family is unfortunately subject, and had been the source not only of great solicitude, but frequently the cause of death. If the least scratch is made on the skin of some of them, as mortal a haemorrhagy will eventually ensue as if the largest wound is inflicted. The divided parts, in some instances, have had the appearance of uniting, and have shown a kind disposition to heal; and, in others, cicatrization has almost been perfect, when, generally about a week from the injury, an hemorrhagy takes place from the whole surface of the wound, and continues several days, and is then succeeded by effusions of serous fluid; the strength and spirits of the person become rapidly prostrate; the countenance assumes a pale and ghastly appearance; the pulse loses its force, and is increased in frequency; and death, from mere debility, then soon closes the scene. Dr. Rogers attended a lad, who had a slight cut on his foot, whose pulse 'was full and frequent' in the commencement of the complaint, and whose blood 'seemed to be in a high state of effervescence.' So assured are the members of this family of the terrible consequences of the least wound, that they will not suffer themselves to be bled on any consideration, having lost a relation by not being able to stop the discharge occasioned by this operation.

"Various remedies have been employed to restrain the hemorrhages; the bark, astringents used topically and internally, strong styptics, opiates, and, in fact, all those means that experience has found serviceable, have been tried in vain. Physicians of acknowledged merit have been consulted, but have not been able to direct any thing of utility. Those families that are subject to certain complaints are occasionally relieved by medicines that are inefficacious when applied to others; and family receipts are often of greater advantage in restoring them, than all the drugs the materia medica offers for that purpose. A few years since the sulphate of soda was accidentally found to be completely curative of the hemorrhages I have described. An ordinary purging dose, administered two or three days in succession, generally stops them; and, by a more frequent repetition, is certain of producing this effect. The cases in which the most powerful, and apparently the most appropriate remedies have been used in vain, and those in which this mode of treatment has been attended with success, are so numerous, that no doubt can exist of the efficacy of this prescription. The persons who are subject to this hemorrhagic idiosyncrasy, speak of it with the greatest confidence. Deceptions may take place from accidental coincidence; but when a complaint has often occurred, and been almost uniformly fatal without the administration of a certain medicine, and has constantly yielded when it has been given, scepticism should be silent with regard to its utility. Nor should our inability to account for the fact, upon the theory and principles we have adopted, be conceived a sufficient reason for disbelieving it. An attempt to explain the mode of operation of this valuable remedy might give birth to much speculation. As the affection has been attended with mortality, and there is generally a disposition to give relief as early as possible, experiments have not been made with the other neutral salts to learn their comparative effect; nor have medicines been tried, whose operation might be supposed to be similar. The prescription being known to the whole family, application is rarely made to a physician; and when it is, it is rather with a view of directing him how to proceed, than of permitting him to make a series of trials and observations which might be at the hazard of the life of the patient. The utility of the sulphate of soda cannot arise from its debilitating effects, since it has been found serviceable when the previous depletion has been great, the strength much exhausted, and the system has evidenced symptoms of direct debility. Perhaps time will elucidate its mode of operation, and some general principles may be developed that may be applied to advantage in restraining ordinary hemorrhages; but reasoning upon what has been discovered to be useful in idiosyncrasies, and applying it to the general constitution of human nature, must necessarily be vague, and productive of occasional evil. In every case, however, a doubtful remedy is preferable to leaving the patient to his fate. The sulphate of soda has constantly succeeded when administered; but the prescription being in the possession of the Shepard family, the descendants of Smith, and the cases that have been attended by physicians not being very numerous, it is impossible to ascertain the various states of the system in which it has been given, or to form any correct conclusions respecting its manner of acting. No experiments have been made on the blood, to discover if any or what changes take place in it.

"It is a surprising circumstance that the males only are subject to this strange affection, and that all of them are not liable to it. Some persons, who are curious, suppose they can distinguish the bleeders (for this is the name given to them) even in infancy; but as yet the characteristic marks are not ascertained sufficiently definite. Although the females are exempt, they are still capable of transmitting it to their male children, as is evidenced by its introduction, and other instances, an account of which I have received from the Hon. Judge Livermore, who was polite enough to communicate to me many particulars upon this subject. This fact is confirmed by Drs. Rogers and Porter, gentlemen of character residing in the neighbourhood, to whom I am indebted for some information upon this curious disposition. When the cases shall become more numerous, it may perhaps be found that the female sex is not entirely exempt; but, as far as my knowledge extends, there has not been an instance of their being attacked.

"The persons subject to this hemorrhagic disposition are remarkably healthy, and, when indisposed, they do not differ in their complaints, except in this particular, from their neighbours. No age is exempt, nor does any one appear to be particularly liable to it. The situation of their residence is not favourable to scorbutic affections or disease in general. They live, like the inhabitants of the country, upon solid and nutritious food, and when arrived to manhood, are athletic, of florid complexions, and extremely irascible.

"Dr. Rush has informed me, he has been consulted twice in the course of his practice upon this disease. The first time, by a family in York, and the second, by one in Northampton county, in this State. He likewise favoured me with the following account, which he received some years since from Mr. Boardley, of a family in Maryland, afflicted with this idiosyncrasy.

" 'A. B. of the State of Maryland, has had six children, four of whom have died of a loss of blood from the most trifling scratches or bruises. A small pebble fell on the nail of a fore-finger of the last of them, when at play, being a year or two old; in a short time, the blood issued from the end of that finger, until he bled to death. The physicians could not stop the bleeding. Two of the brothers, still living, are going in the same way; they bleed greatly upon the slightest scratch, and the father looks every day for an accident that will destroy them. Their surviving sister shows not the least disposition to that threatening disorder, although scratched and wounded. The father gave me this account two days since, but I was not inquisitive enough for particulars.' "

The phenomena peculiar to hemophilia had been known for many centuries. The Talmud of the ancient Hebrews, written about 200 A.D., forbids circumcision of a child if the operation has proved fatal successively in two brothers of the same family. The translation of the Hebrew reads, "If a woman has her first boy cut and he dies, and again a second, then shall she not have the third one cut." Another paragraph provides that "If two children of the same mother or a child each of two sisters die in succession as the result of circumcision then it shall not be performed on the third child." Through the ages numerous references to this particular type of hemorrhage have appeared. Otto's paper was by no means the first printed description of the disease but Krumbhaar says of it that "To Otto belongs the distinction of having first adequately recognized and described hemophilia, and so brought it to the attention of the medical world that it at once took its position as a separate and important disease."



John Conrad Otto

Otto made several other contributions to the literature of medicine, most important of which was his inaugural address on epilepsy, which Krumbhaar regards as a splendid exposition of that disease. It seems strange, therefore, that a man who apparently had exceptionally good judgment should have lauded such a drug as sodium sulphate as a cure for hemophilia. It has, of course, been proved to be of no value, and Otto apparently made the mistake that so many others have made of basing his opinion on very limited experience.

A word about John Conrad Otto may not be amiss. He was the son of the famed Bodo Otto who served as surgeon in the American Revolution and achieved lasting fame. The paternal grandfather and great-grandfather also were physicians. Young Otto was graduated from the College of New Jersey, now Princeton, with the Bachelor of Arts degree in 1792. He became apprenticed to Benjamin Rush and graduated in medicine from the University of Pennsylvania in 1796. He established himself as a practitioner in Philadelphia, and when Rush died in 1813 Dr. Otto was chosen to succeed him as attending physician to the Philadelphia Hospital and attained fame as a teacher as well as a practitioner.

Among the most voluminous of early American medical authors was James Thacher, born in Barnstable, Massachusetts, in 1754. He probably stemmed on the paternal side, from the Thomas Thacher of "Brief Rule" fame. Williams says that no less than sixteen graduates by the name of Thacher appear in the triennial catalogue of Harvard University from 1671 to 1832, but this James Thacher was not listed among them. Little is known of his formal education, but it is recorded that at sixteen he was apprenticed to Dr. Abner Hersey, of Barnstable, to begin the study of medicine. He was certified as competent to practice in 1775, at the age of twenty-one, and, having passed a stiff examination, in July, 1775, was appointed surgeon's mate in the hospital at Cambridge. In February, 1776, he was commissioned surgeon's mate to Dr. David Townsend and attached to one of the Continental regiments stationed on Prospect Hill.

Thacher's fame as a medical author rests largely on his *American Medical Biography* which was published in 1827, the first of its kind in America. It was unquestionably his *magnum opus* and established him as an outstanding medical historian and biographer. Thacher's literary efforts extended into many and various fields. He wrote a splendid work on *Practice, a Dispensatory* and a *Treatise*

On Hydrophobia in which he extolled the virtue of Scutellaria (skullcap) as a therapeutic agent. His nonmedical works included a *Practical Treatise on the Management of Bees, an Essay on Demonology, a History of Plymouth* and a guide for fruit growers entitled *The American Orchardist*. But his masterpiece was his "*Military Journal During the Revolutionary War*," which is a day by day account of his personal experiences extending over a period of nearly eight years. It was popular for a long time and went through three editions, 1824, 1827 and 1854. It seems, however, to have been forgotten, for references to it are few and far between. It is fascinating, both in content and literary style, as will be attested by a few quotations:

"*October 14, 1777.*

"After the capture of Fort Montgomery, Sir Henry Clinton despatched a messenger by the name of Daniel Taylor, to Burgoyne with the intelligence; fortunately he was taken on his way as a spy, and finding himself in danger, he was seen to turn aside and take something from his pocket and swallow it. General George Clinton, into whose hands he had fallen, ordered a severe dose of emetic tartar to be administered; this produced the happiest effect as respects the prescriber; but it proved fatal to the patient. He discharged a small silver bullet, which being unscrewed, was found to enclose a letter from Sir Henry Clinton to Burgoyne. 'Out of thine own mouth thou shalt be condemned.' The spy was tried, convicted and executed."

His description of George Washington is a portrait in words:

"*Oct 8, 1778.*

"His Excellency, the Commander in Chief, made a visit to our hospital; his arrival was scarcely announced, before he presented himself at our doors. Dr. Williams and myself had the honor to wait on this great and truly good man, through the different wards, and to reply to his inquiries relative to the condition of our patients. He appeared to take a deep interest in the situation of the sick and wounded soldiers, and inquired particularly as to their treatment and comfortable accommodations. Not being apprized of his intended visit in time to make preparation for his reception, we were not entirely free from embarrassment, but we had the inexpressible satisfaction of receiving his Excellency's approbation of our conduct, as respects the duties of our department. The personal appearance of our Commander in Chief, is that of the perfect gentleman and accomplished warrior. He is remarkably tall, full six feet, erect and well proportioned. The strength and proportion of his joints and muscles, appear to be commensurate with the preeminent powers of his mind. The serenity of his countenance, and majestic gracefulness of his deportment, impart a strong impression of that dignity and grandeur, which are his peculiar characteristics, and no one can stand in his presence without feeling the ascendancy of his mind, and associating with his countenance the idea of wisdom, philanthropy, magnanimity, and patriotism. There is a fine symmetry in the features of his face, indicative of a benign and dignified spirit. His nose is straight, and his eyes inclined to blue. He wears his hair in a becoming cue, and from his forehead it is turned back and powdered in a manner which adds to the military air of his appearance. He displays a native gravity, but devoid of all appearance of ostentation. His uniform dress is a blue coat, with two brilliant epaulettes, buff colored under-clothes, and a three cornered hat, with a black cockade. He is constantly equipped with an elegant smallsword, boots and spurs, in readiness to mount his noble charger. There is not in the present age, perhaps, another man so eminently qualified to discharge the arduous duties of the exalted station he is called to sustain, amidst difficulties which to others would appear insurmountable, nor could any man have more at command the veneration and regard of the officers and soldiers of our army, even after defeat and misfortune. This is the illustrious chief, whom a kind Providence has decreed as the instrument to conduct our country to peace and to Independence."

"*October 2d, 1780.*

"Major Andre is no more among the living. I have just witnessed his exit. It was a tragical scene of the deepest interest. During his confinement and trial, he exhibited those proud and elevated sensibilities which designate greatness and dignity of mind. Not a murmur or a sigh ever escaped him, and the civilities and attentions bestowed on him were politely acknowledged. Having left a mother and two sisters in England, he was heard to mention them in terms of the tenderest affection, and in his letter to Sir Henry Clinton, he recommends them to his particular attention.

"The principal guard officer who was constantly in the room with the prisoner, relates that when the hour of his execution was announced to him in the morning, he received it without emotion, and while all present were affected with silent gloom, he retained a firm countenance, with calmness and composure of mind. Observing his servant enter the room in tears, he exclaimed, 'Leave me till you can show yourself more manly.' His breakfast being sent to him from the table of General Washington, which had been done every day of his confinement, he partook of it as usual and having shaved and dressed himself, he placed his hat on the table, and cheerfully said to the guard officers, 'I am ready at any moment, gentlemen, to wait on you.' The fatal hour having arrived, a large detachment of troops was paraded, and an immense concourse of people assembled; almost all our general and field officers, excepting his



James Thacher

Excellency and his staff, were present on horseback; melancholy and gloom pervaded all ranks, and the scene was affectingly awful. I was so near during the solemn march to the fatal spot, as to observe every movement, and participate in every emotion which the melancholy scene was calculated to produce. Major Andre walked from the stone house, in which he had been confined, between two of our subaltern officers, arm in arm; the eyes of the immense multitude were fixed on him, who, rising superior to the fears of death, appeared as if conscious of the dignified deportment which he displayed. He betrayed no want of fortitude, but retained a complacent smile on his countenance, and politely bowed to several gentlemen whom he knew, which was respectfully returned. It was his earnest desire to be shot, as being the mode of death most conformable to the feelings of a military man, and he had indulged the hope that his request would be granted. At the moment, therefore, when suddenly he came in view of the gallows, he involuntarily started backward, and made a pause. 'Why this emotion, Sir,' said an officer by his side? Instantly recovering his composure, he said, 'I am reconciled to my death, but I detest the mode.' While waiting and standing near the gallows, I observed some degree of trepidation; placing his foot on a stone, and rolling it over, and choking in his throat, as if attempting to swallow. So soon, however, as he perceived that things were in readiness, he stepped quickly into the wagon, and at this moment he appeared to shrink, but instantly elevating his head with firmness, he said, 'It will be but a momentary pang,' and taking from his pocket two white handkerchiefs, the provost marshal with one, loosely pinioned his arms, and with the other, the victim, after taking off his hat and stock, bandaged his own eyes with perfect firmness, which melted the hearts, and moistened the cheeks, not only of his servant, but of the throng of spectators. The rope being appended to the gallows, he slipped the noose over his head and adjusted it to his neck, without the assistance of the awkward executioner. Colonel Scammel now informed him that he had an opportunity to speak, if he desired it; he raised the handkerchief from his eyes, and said, 'I pray you to bear me witness that I meet my fate like a brave man.' The wagon being now removed from under him, he was suspended and instantly expired; it proved indeed 'but a momentary pang.' He was dressed in his royal regimentals and boots, and his remains, in the same dress, were placed in an ordinary coffin, and interred at the foot of the gallows; and the spot was consecrated by the tears of thousands. Thus died in the bloom of life, the accomplished Major Andre, the pride of the royal army, and the valued friend of Sir Henry Clinton. He was about twenty-nine years of age, in his person well proportioned, tall, genteel and graceful; his mien respectable and dignified; his countenance mild, expressive and prepossessing, indicative of an intelligent and amiable mind."

The concluding paragraph of his journal, dated January 1st, 1783 reads:

"To my military companions I bid a final adieu, and hope to enjoy in future the blessings which attend a virtuous course of domestic life. . . . While I congratulate my country on the momentous event by which we are about to be elevated to the rank of an independent nation, most cordially do I proffer my sympathy for the many lives of inestimable value which have been sacrificed during this ever-memorable event."

These illustrative paragraphs reflect the character of the journal in its entirety. It is perhaps the most intimate and delightful record of the Revolution ever published. Could it have inspired Harvey Cushing's beautifully written *From A Surgeon's Journal*?

UNDER THE CAPITOL DOME

AUTOMOBILE DEATH TOLL

Indiana kept pace with the nation in 1941 by showing a considerable decline in the general death rate, but an increase in deaths caused by automobile accidents.

The United States Public Health Service reported that the general death rate during 1941 was approximately fifty persons less per thousand population last year, as compared with 1940. For Indiana, Dr. John W. Ferree, secretary of the State Board of Health, reported that the general death rate per 1,000 population decreased from 11.7 in 1940 to 11.2 in 1941. Total deaths in Indiana in 1941 were 39,530, whereas the total for 1940 was 40,415.

The United States Public Health Service reported that the national death rate from automobile accidents increased eighteen per cent, and the death rate from accidents other than those connected with automobiles increased two per cent.

In Indiana the State Board of Health showed that the death rate from automobile accidents increased from 35.2 per 100,000 population in 1940, to 44.1 per 100,000 population last year. Total deaths listed as automobile deaths for 1941 were 1,517, whereas for 1940 the total was 1,215.

TULAREMIA RESEARCH PROJECT

A cooperative research project aimed at elimination of tularemia among hunters in Indiana is being conducted at Purdue University. It is sponsored by the Fish and Game Division of the State Department of Conservation in cooperation with the United States Fish and Wild Life Service and Purdue University.

The purpose of the research project is to attempt to find a method for the control of tularemia among wild life, according to Clinton R. Gutermuth, director of the Conservation Department's Fish and Game Division. He reported that this type of control would serve to keep down the incidence of the disease among hunters. He made it very plain that he was not speaking for the scientific men at work on the project, but he said that some facts seem to have been established thus far. Tularemia is carried by a "rabbit tick." These ticks are driven under ground by "killing frosts." Rabbits bitten by these disease-carrying ticks die within three or four days. Mr. Gutermuth therefore concluded that infection to hunters could be materially reduced, if not eliminated, by fixing a later date for the opening of the hunting season. The open season, he said, should not begin until there have been seven or eight killing frosts on successive days. Of course, this would produce some difficulties, for killing frosts do not occur at the same time each year.

He believes, because infected rabbits die within the three or four day period, that by allowing sufficient time for the death of the infected rabbits and for driving the ticks under ground, the problem of the hunter could be solved.

Mr. Gutermuth also has some other very definite ideas about tularemia. "It is very unfair to call tularemia 'rabbit fever,'" he said. "Rabbits are not the only animals that are prone to the infection. All rodents are subject to tularemia. So are members of the grouse family—even fish. "Tularemia is not a new disease; we have always had it."

Mr. Gutermuth also insisted that the prevalence of the disease is exaggerated. "There were approximately 400,000 man-days of hunting last year, and there were only 117 reported cases of tularemia." Publicity given tularemia in recent years has resulted in a tremendous increase in the rabbit population of Indiana. "There are more rabbits in Indiana now than ever before in the history of the state," he declared, and he added that there is a strong possibility that rabbits may even become a pest in certain localities of the state.

Mr. Gutermuth said that the increase in the rabbit population is a direct result of the fact that hunters are afraid of rabbits. Fear of the disease has greatly reduced rabbit hunting in practically every section of the state. However, there has been no noticeable reduction in the number of hunting licenses sold in the state, nor in the amount of hunting for other game, according to the conservation department official. The research project at Purdue University is under the direction of Professor Gordon Fredine, head of the university's Conservation and Forestry Division. Working with him are two wild-life technicians. The project also has the cooperation of the laboratory of the university's Department of Poultry Husbandry. Actual work is being conducted both in the laboratory and in demonstration areas. Work has been in progress approximately one year. It can run for an additional four years if necessary. The cost of the project is being borne by the sportsmen, Mr. Gutermuth pointed out. The Federal Government pays seventy-five per cent of the cost, and the state twenty-five per cent. The federal funds come from a firearms and ammunition tax, and the state's share from the funds is derived from the sale of hunting and fishing licenses.

The present date for the opening of the rabbit-hunting season is November tenth. "On a guess, I would say that ninety per cent of the so-called 'rabbit fever' among hunters in Indiana could be eliminated if the season were kept closed until November twenty-seventh," Mr. Gutermuth said.

ABSTRACT

CAUSES OF REJECTIONS OF SELECTEES AT ARMY INDUCTION STATION

Individual variations in the interpretation of regulations prescribed by the War Department for Army physical examinations are believed to be responsible for some of the rejections of selectees at Army induction stations after they have been passed by local draft boards, Milton S. Saslaw, M.D., Captain, Medical Corps, United States Army, and Carl S. Junkermann, M.D., Major, Medical Corps, United States Army, Camp Shelby, Miss., point out in the current issue of *War Medicine*, published by the American Medical Association in cooperation with the National Research Council.

They say, however, that "at the present time, revision of the regulations . . . is in progress, and it is hoped that the new regulations will clearly set forth exact requirements."

Their report is based on a study of statistics regarding rejections at the induction station at Camp Shelby for April, May and June, 1941, compared with those for December, 1940 through March, 1941.

In a previous report Captain Saslaw had presented the most common causes for rejection "with an idea of helping prevent other local draft board physicians from making the same errors. Several methods were outlined as possible means to obviate the high rejection rate, one of which, the lecture-demonstration tour through key cities, was tried in the state of Mississippi."

During the first period the three largest causes of rejection were flat feet (39.8 per cent), general body defects (8.6 per cent) and hemorrhoids (4.5 per cent). For the second period of study the percentages were as follows: flat feet, 13.8 per cent; general body defects, 10 per cent, and hemorrhoids, 1.5 per cent. In the second period venereal diseases led the entire group, with a rejection rate of 15.3 per cent. Flat feet was second and mental condition was third (11.2 per cent).

The two authors say that "The increase in the venereal disease rate is perhaps partly explained on a seasonal basis, but there is no doubt that greater caution was exercised at the induction station to ferret out cases of such disease. The decrease in the rate of rejection for pes planus is explainable partly by the beneficial effects of the lecture-demonstration tour and partly by a more liberal interpretation of the existing regulations. The high rate of incidence of mental conditions is not real. It is explainable on the basis of inclusion in this group of selectees unable to pass a literacy test begun May 15. Illiterate selectees were included in this group (and in fact, constituted by far the largest part) because in the previous statistics a certain number of illiterates had been included. . . .

"The monthly rejection rate dropped from 30.4 per cent in February and 33.7 per cent in March to 22.8 per cent in April, 20.8 per cent in May and 22.5 per cent in June. One is tempted to assume from these figures that the lecture-demonstration tour made through the state of Mississippi was successful in decreasing the number of rejections. Actually, however, this is not the entire truth. During this period a change in personnel, along with a change in attitude toward greater liberalism in interpretations of regulations, occurred, and this greater liberalism was just as effective as was the lecture-tour demonstration."

WHAT WENT ON DURING WORLD WAR I

THE JOURNAL had assumed a war-time attitude, there having been a number of articles and editorial comments on such matters.

* * *

In the scientific section were found a discussion of drainage of chest for empyema, by Maurice Rosenthal, Fort Wayne; x-ray diagnosis of mastoiditis, by Albert Cole, Indianapolis; early diagnosis of mastoiditis, via the x-ray, by William F. Clevenger, Indianapolis; and a paper on errors in diagnosis of sinus disease, by Joseph Maurer, of Marion.

* * *

The Council on National Defense, Washington, had prepared a special article on medical preparedness.

* * *

Editor Bulson went the full route in this issue, using eight editorials. The lead editorial, of course, was one on the duty of physicians in time of war, though he spent some time and space in declaring that the government wanted real doctors and that the "pseudo-cults and pretenders" were not being asked to assist in the medical phases of the war. Among other topics editorially discussed were focal infection, a plea for a more uniform return of vital statistics, total disability in insurance clauses, the renovation and fumigation of movie theaters, and somewhat of a tirade against "unwarranted leniency to farmers."

* * *

A new department had been established in THE JOURNAL—"New and Nonofficial Remedies and the Propaganda for Reform," a department that continues to be used today by almost every journal in the country.

* * *

The editor appeared quite concerned because of the inquiry voiced by a local newspaper as to why all accident cases handled by the police ambulances are termed "fractured skull" cases. Bulson opined that medical incompetency was responsible for most of this.

* * *

The editor commented on the fact that most of the suits defended by the Indiana State Medical Association Defense Committee were those filed against physicians who were not "too good" members of their local medical society.

* * *

The editor expressed his "official" opinion that the Wassermann test had come to stay!

* * *

Extensive comment was made because Fort Wayne newspapers carried a story to the effect that a local optometrist had been billed to give a talk in one of the public schools on "The Eyes and General Health." Bulson, ofttimes at swords points with the Indiana State Board of Medical Registration and Examination, said, "Really, there is no reason why we should have any medical laws; the people stand for anything and our boards of medical registration apparently make no effort to prevent anyone from practicing medicine, whether they know anything about medicine or not."

* * *

The need for more medical men for the Army and Navy was stressed, all physicians of the proper age were urged to enlist.

* * *

Counter-prescribing by druggists again felt the heavy hand of the editor.

* * *

It was announced that the new executive secretary was making visits to local medical societies over the state, and that he hoped to complete the rounds at an early date.

* * *

The editor continued to show his pleasure over the fact that the biennial session of the Indiana Legislature had ended. (Bulson never did evince much faith in these bodies!)

* * *

Nation-wide support for the American Red Cross was strongly urged.

* * *

Dr. Chas. P. Goodrich, eye, ear, nose and throat specialist, had died.

* * *

Dr. and Mrs. Joel Whitaker, Indianapolis, were vacationing in Georgia.

* * *

Two physicians, Drs. James Wilson (Democrat) and Lawrence Jewett (Republican) had been nominated as candidates for mayor of Wabash.

* * *

Dr. David Johns and Miss Helen Hartley had recently been married.

* * *

Dr. B. M. Edlavitch, Fort Wayne, had been commissioned as a first lieutenant in the Medical Reserve Corps.

* * *

Dr. John H. Oliver, Indianapolis, had been appointed as director of a new base hospital being organized in that city.

* * *

Dr. J. Rilus Eastman was reported as finally being on his way home, after an extensive surgical service in the European war areas; he had been "detained" because of our break with Germany.

* * *

Dr. D. A. Bartley, Indianapolis, was serving as a medical officer in a London hospital.

* * *

The American Red Cross announced that among other available equipment at hand, they were ready to furnish twenty-six complete Army and Navy base hospital units.

News Notes

Dr. T. P. Walsh, of Garrett, was recently appointed a member of the city board of health.

Dr. H. E. Line, of Chili, has been appointed health officer of Miami County.

Dr. Robert Rang, of Washington, has been awarded a fellowship in surgery at the Mayo Clinic.

Dr. E. E. Long, of Shoals, was recently appointed district board member of the Martin County Tuberculosis Association.

Dr. Joseph S. Smith, formerly of Plainfield, has been appointed resident physician at the United States Veterans' Hospital, Little Rock, Arkansas.

Dr. Thomas A. Brady, of Gary, and Miss Jane Cooling, of Indianapolis, were married February fourteenth, in Indianapolis.

Dr. James R. Hamilton, of Mitchell, has been appointed city health officer to succeed Dr. J. D. Byrns, who died on January eighteenth.

Dr. Donald E. Spahr, of Portland, has been made a member of the Jay County Civilian Defense Committee.

Dr. John A. Pfaff, of Indianapolis, has been appointed physician for the Marion County Infirmary at Julietta.

Dr. J. H. Grimes, of Danville, has been named chairman of the Medical Advisory Committee to the Hendricks County Welfare Board.

Dr. R. R. Calvert, of Lafayette, has been named a member of the board of managers of the William Ross Sanatorium.

Tribute was paid to Dr. James E. Keeling, of Waldron, at a celebration held on Sunday, March eighth, at the Waldron Methodist Church. The occasion was in observance of Dr. Keeling's fifty years of medical service.

Dr. Julia Russell Davin, formerly of Westbury, Long Island, has been added to the staff of the Indiana State Sanitarium at Rockville.

Dr. W. B. Rhamy, of Fort Wayne, has been made chairman of the Necrology Committee of the American Society of Clinical Pathologists.

Dr. John W. Ferree, of Indianapolis, has been reappointed by Governor Schricker to serve as secretary of the State Board of Health.

Dr. J. W. Aldridge, of Covington, has been appointed chairman of the Fountain County Selective Service Board.

Dr. Philip W. Hedrick, of Indianapolis, and Miss Ruth E. Austin, of Swampscott, Massachusetts, were married January seventeenth at Lynn, Massachusetts.

Dr. E. R. Maierhofer, formerly of New York City, has opened an office in Walkerton, Indiana, in addition to his duties at the Kingsbury Ordnance plant.

Dr. Leo R. Nonte, of Loogootee, and Miss Kathleen Usher, of Indianapolis, were married on February fourteenth at St. Anthony's Catholic Church, Indianapolis.

Dr. Charles E. Thorne, of New Castle, and Mrs. Virginia Keefe, of Dallas, Texas, were married February twenty-second at the First Methodist Church of New Castle.

Under the will of the late Dr. George W. Hall, a prominent Chicago physician and surgeon, and a native of Montgomery County, Indiana, Wabash College was bequeathed $5,000.

Simon P. Neidigh, Indiana's oldest employe in both years of service and age, died on February twenty-first, at the age of ninety. Mr. Neidigh had served as steward and chief clerk at the Central State Hospital for more than fifty-two years. His associates regarded him as a man of wide vision, and with a splendid courage that enabled him to continue his duties faithfully and satisfactorily to the end.

Dr. Perry A. Campbell, of Indianapolis, and Miss Bernice Lake, of Everton, were married at the home of the bride on February twentieth.

At a meeting of the Indiana Coroner's Association in Indianapolis, February twenty-eighth, Dr. J. Robert Doty, of Gary, was elected president, and Dr. Roy B. Storms, of Indianapolis, vice-president.

At a meeting of the Children's Dispensary and Hospital Association, of South Bend, March third, Dr. Milo K. Miller was re-elected president, Dr. J. L. Wilson, vice-president, and Dr. H. F. Mitchell, secretary-treasurer.

AMERICAN CONGRESS ON OBSTETRICS AND GYNECOLOGY

We again call attention to the Second American Congress on Obstetrics and Gynecology, to be held in the St. Louis Auditorium, St. Louis, April sixth to tenth, inclusive. A wide variety of presentations will be included in the program—three "Obstetric Information, Please" hours, clinical conferences, demonstrations of home deliveries, transfusions, obstetric procedures on the manikin. There also will be opportunity for personal consultations with well-known specialists, and at a luncheon meeting War problems will be iscussed. In view of the expected large attendance, hotel reservations should be made in advance.

ANNUAL MEETING OF THE INDIANA TUBERCULOSIS ASSOCIATION

Two interesting talks will feature the Annual Meeting of the Indiana Tuberculosis Association which will be held jointly with the regular meeting of the Indianapolis Medical Society on April fourteenth at the Lincoln Hotel, Indianapolis. This session, which will open at 8:00 P.M., is to be addressed by Dr. Herman E. Hilleboe, P.H. Surgeon in Charge, Tuberculosis Control, States Relations Division, United States Public Health Service, Washington, D. C., who will discuss "The Tuberculosis Problem During the War." Following this, Dr. Bruce H. Douglas, Commissioner of Health, Detroit, Michigan, will speak on "Latest Developments in Tuberculosis Research." Dr. Douglas is also president of the National Tuberculosis Association. Both men are accomplished speakers and their subjects will be presented in an interesting manner.

On the following day, April 15, beginning at 2:00 P.M., as a part of the Indiana Tuberculosis Association Annual Meeting program, there will be a Clinical and X-ray Conference, with discussion of unusual cases, at which films will be presented and discussed. The meeting will be in charge of Dr. James F. Spigler, Terre Haute, president of the Indiana Trudeau Society.

Dr. A. M. Hetherington, of Indianapolis, has been appointed physician for the Marion County jail.

Dr. Emil Rothstein, formerly of Brooklyn, New York, has been appointed a member of the staff at the Indiana State Sanitarium at Rockville.

NORTHERN TRI-STATE MEETING

The Northern Tri-State Medical Association will hold its Sixty-Ninth Annual Meeting at Fort Wayne, Indiana, on April 7, 1942. All meetings will be held in the Chamber of Commerce Building. A distinguished list of speakers has been secured to address the convention.

Registration will begin at 8:30 A.M. and the general program will start at 9:00 A.M. A banquet will be held at 6:00 P. M.

All arrangements for the local program are in charge of the Allen County Medical Society, and the Ladies' Auxiliary of the Allen County Medical Society will entertain the wives of the attending physicians during the meeting.

The Hotel Keenan has been established as the official headquarters of the Association, and anyone desiring room accommodations may secure the same by writing to that hotel.

The outline of the program is attached hereto.

PROGRAM

"Treatment of Facial Injuries and Deformities," by Claire L. Straith, M.D., Detroit, Michigan.

"The Nature and Experimental Treatment of Hypertension," by Irvine H. Page, M.D., Lilly Laboratory for Clinical Research, Indianapolis City Hospital, Indianapolis, Indiana.

"Clinical Studies of the Pituitary Factor in Patients with Thyroid Disease," by Paul Starr, M.D., Assistant Professor of Surgery, Northwestern University Medical School, Chicago, Illinois.

"Breech Presentation and Problems Associated Therewith," by Nicholas Eastman, M.D., Professor of Obstetrics, The Johns Hopkins Medical School, Baltimore, Maryland.

"Surgical Treatment of Arthritis," by Paul B. Magnuson, M.D., Associate Professor of Surgery, Northwestern University Medical School, Chicago, Illinois.

"Sulfa Derivatives," by Fredrick Yonkman, M.D., Professor of Pharmacology and Therapeutics, College of Medicine, Wayne University, Detroit, Michigan.

"The Importance of Allergy in General Practice," by Jonathan Forman, M.D., Phi Rho Sigma House, Columbus, Ohio.

"The A B C of Orthopedics," by Beveridge H. Moore, M.D., Chief Surgeon, Shriner's Hospital, Chicago, Illinois.

"Bone Growth in Early Infancy," by Arthur H. Parmalee, M.D., Clinical Professor of Pediatrics, Northwestern University Medical School, Chicago, Illinois.

"Civilian Defense and the Doctor," by William S. Keller, M.D., Medical Officer of Fifth Civilian Defense Region, Office of Civilian Defense, Columbus, Ohio.

EMBLEM FOR AMERICAN PSYCHIATRIC ASSOCIATION

A contest for the design of an emblem for the American Psychiatric Association is announced by Dr. J. K. Hall of Richmond, Virginia, president of the Association. The emblem will be used in the centennial celebration in 1944 of the American Psychiatric Association, which is the oldest organization of medical specialists in the country.

1. All artists, art teachers and students are invited to compete.

2. Prizes amounting to a total of $500 will be awarded. Three prizes of $100 each will be awarded for the three best drawings, selected by a jury which includes Eric Gugler, architect; Leon Kroll, painter, and Paul Manship, sculptor.

3. From these three drawings, the Council of the American Psychiatric Association will select the one which they consider most suitable for their purpose. This drawing will receive an additional award of $200, and will become the property of the association, which will thus acquire all rights of reproduction in any form. All remaining drawings will be returned.

4. The design may be executed in any medium; it should be rectangular and preferably vertical. To facilitate handling, the size of the mat should be 11 by 14 inches. Every care will be taken to prevent injury to the drawings, but the American Psychiatric Association does not assume any responsibility for loss or damage from any cause. The artists are requested not to place their signatures on the face of the drawing, or in a place which is concealed under the mat. The full name and address of the contestant should appear on the reverse side of the drawing.

5. Drawings should be sent to the American Psychiatric Association, 9 Rockefeller Plaza, New York City, and should reach that office not later than April 15, 1942. Regarding all administrative matters, please communicate with Mr. Austin Davies, executive secretary of the Association, at the above address.

6. Inquiries concerning the general ideas of the contest, or details of the history or activities of the American Psychiatric Association, which might be helpful to the artist, are to be addressed to the chairman of the Committee on the History of Psychiatry, Dr. Gregory Zilboorg, 14 East 75th Street, New York City.

7. The artist is free to use any ideas he deems suitable. However, in order that the design should represent the aims of the American Psychiatric Association, its purpose in the study of mental diseases, and its social and cultural importance, it is suggested that the artist write to Dr. Zilboorg for the explanatory folder containing this information.

NEW APPOINTMENT PROCEDURE FOR PHYSICIANS

To: District Directors, Medical Officers in Charge and others concerned.

1. The Procurement and Assignment Service within the Office of Defense Health and Welfare Services has the responsibility for assisting in the procurement and assignment of *physicians* in such manner as to best serve the over-all health and medical needs of the country. It is essential that the personnel policy of the Public Health Service be consistent with the major purposes of the Procurement and Assignment Service.

2. It is desired that applications be solicited from qualified physicians for commission in the Reserve Corps of the United States Public Health Service. The expansion of the Reserve Corps of the Public Health Service is necessary to serve two major purposes:

(a) The creation of a pool of qualified public health personnel to safeguard essential civilian health services and at the same time to be available for immediate, though temporary, active duty in the event of some major public health emergency.

(b) The procurement of sufficient numbers of qualified physicians and dentists to enable the Public Health Service to carry on its normal and war-time activities.

3. In order to serve these two major purposes, it will be necessary to recruit into the reserve of the Public Health Service physicians who come within the two following categories:

(a) Those who are now engaged in public health work and who by reason of special training and experience occupy strategic positions in their present civilian capacities. Such personnel would be expected to remain on inactive status with the Public Health Service, except in the event of a major disaster, in which case they would be subject to immediate, though temporary, active duty.

(b) Those who are professionally qualified and also available for immediate active duty in the Public Health Service for such periods of time as the exigencies of the service may determine.

4. Applications from physicians relating to commissions in the reserve of the Public Health Service will be processed in the following manner: On receipt of an application by the office of the Surgeon General, the application forms and all supporting papers, including the report of physical examination, will be transmitted with a definite recommendation of the Surgeon General to the Procurement and Assignment Service. The Procurement and Assignment Service will in turn certify to the Surgeon General as to the availability of the individual for appointment. In the case of public health personnel occupying strategic positions in civilian posts, the criterion of availability for commission would rest largely upon the fact that the

individual occupies a strategic position, and therefore should remain as long as practicable on an inactive status. In the case of personnel to be called to immediate active duty, the criterion of availability would be based upon the ability of the community to spare the services of the individual. Upon receipt from the Procurement and Assignment Service of notice of clearance, indicating that the applicant is available for a commission in the reserve of the Public Health Service, the appointment will be completed in the usual manner.

5. The above procedure does not apply to the recruiting of individuals for the regular corps of the Public Health Service, nor to the appointment of interns or doctors certified by the Civil Service Commission, nor to the appointment of sanitary engineer officers in the reserve.

6. When the Public Health Service is without acceptable applications from physicians and dentists for filling vacancies, the Surgeon General will request the Procurement and Assignment Service for the names and qualifications of persons available to fill such vacancies. When decision has been reached as to the selection or non-selection of such persons, the Surgeon General will advise the Procurement and Assignment Service.

7. The Procurement and Assignment Service has given its endorsement to the procedure outlined above.

THOMAS PARRAN,
Surgeon General.

INDIANA UNIVERSITY NEWS NOTES

Dr. Charles G. Johnston, Detroit surgeon who has attained international fame in the treatment of intestinal disorders, recently lectured at the Indiana University Medical Center, at which time he spoke on "Control of Distention in the Therapy of Intestinal Obstruction."

Executives of the eight hospital centers in Indianapolis and Marion County, faced with the depletion of their staffs and the taxing of bed facilities because of the war, have formed the Indianapolis Hospital Council, to make a detailed study of mutual problems. J. B. H. Martin, administrator of the Indiana University Medical Center, is the newly-elected president of the council. A. Kenelm Cox, accountant at the Methodist Hospital, was named secretary. The council is composed of superintendents and business managers of the Indiana University Medical Center (Long, Riley and Coleman Hospitals), City Hospital, Methodist Hospital, St. Vincent's Hospital, St. Francis Hospital, Veterans' Hospital, Sunnyside Sanatorium, and Emhardt Memorial Hospital.

Dr. Frank F. Hutchins, professor emeritus of psychiatry in the Indiana University School of Medicine, died February twenty-second at the Methodist Hospital, Indianapolis, after a long illness. He was seventy-two years of age.

Dr. Hutchins was a member of the original clinical faculty of the Indiana University School of Medicine, organized in the summer of 1906 as the State College of Physicians and Surgeons.

Demands of the war program have necessitated the cancellation of all but one of the several postgraduate courses held each spring at the Indiana University Medical Center. The one annual course which will be held is in ear, nose and throat diseases. It is attended by physicians from various sections of the country.

However, plans are progressing for a refresher course for retired nurses. This course will be given in order to provide an opportunity for retired nurses to get back into active duty.

Successful candidates for admission to the Indiana University School of Medicine, whose training will be accelerated to meet the war-created demand for doctors, have been announced by Dean W. D. Gatch. In making the announcement, Dean Gatch said that the full capacity of Indiana University Medical School's facilities, both in Bloomington and Indianapolis, would be used to the limit in the training of students for the M.D. degree, and that every advantage would be taken of the University's accelerated program in the giving of medical instruction. As a result, Dean Gatch added, the students chosen by the selection committee for admission would begin their training in the university's new third semester, starting May eleventh, and would be graduated in December, 1944, instead of in June, 1946, as under the peace-time schedule.

Students selected for admission and the colleges in which they received their pre-medical work, if other than Indiana University, are as follows:

Bernard Abrams, Cleveland Heights, Ohio, University of Michigan; Frank Adney, Jr., Lebanon, DePauw University; Robert Allen, Richmond; Charles Alvey, Muncie, Ball State Teachers College; Justin Arata, Mishawaka; Forrest Babb, Jr., Bedford; Bertram Baker, Indianapolis, Butler University; John Beeler, Indianapolis, Connecticut Wesleyan and Indiana University; Seymour Berg, New York, New York University; Roger Bissonnette, Wolcott, Purdue University; Joseph Black, Seymour; Melvin Block, Evansville, Evansville College; James Borders, Indianapolis, Butler University; I. Alfred Breckler, Fort Wayne, University of Michigan; William Bridges, Knightstown; Edward Brockman, St. Meinrad; George Buckner, Fort Wayne; Thomas Carpenter, Columbus, Purdue and Indiana Universities; Robert Claeys, Mishawaka; Floyd Coleman, Martinsville; Joseph Coleman, Indianapolis, Butler University; James R. Cook, Hammond, Yale University; William Coon, Greenfield; Stanton Cope, Winchester, Swarthmore College; Harold M. Craig, Indianapolis, Butler University; James A. Craig, Gary; Howard Craven, Auburn, Wabash College; Ray Creager, Fort Wayne; George Cunningham, Jr., Evansville, Princeton University; Robert Cusack, Indianapolis; Paul Dassel, Evansville, Evansville College; Richard Datsman, Otterbein; Edward T. Edwards, Jr., Bloomington; Harry Ellis, Indianapolis, Butler University; Frank Evans, Rushville; Jacque Ferguson, Indianapolis; Charles Fisch, Indianapolis; Louise Foster, Bloomington; Arthur Girod, Decatur;

Carl Goebel, Fort Wayne; John Graf, Indianapolis; Carl Green, Vincennes, Vincennes and Indiana Universities; Morris Green, Indianapolis; Robert Haller, Fort Wayne; Alvin Henry, Seymour, Purdue and Indiana Universities; Howard Henry, Knox; Stanley Hoffman, Terre Haute, Indiana State Teachers College; Walter Hollis, Princeton; Ainslee Hood, Alexandria.

Paul Jarrett, Sharpsville, DePauw University; Lowell Jennings, LaFontaine, Marion College; James F. Johnson, Indianapolis; Richard Johnston, Fort Wayne, Franklin College; Antrim Jones, Bloomington; Clifford Jope, Indianapolis, University of Maryland and Indiana University; Carol Karr, Jeffersonville; Omar Kenyon, Fort Wayne, DePauw University; William Kerrigan, Connersville; Jay King, Royal Center; Charles Knowles, Indianapolis, Butler University; William Koontz, Roanoke; John Krueger, Gary; Richard Land, Richmond; Alexander Lebamoff, Fort Wayne; Robert Lehman, Berne, Bluffton (Ohio) College and Indiana University; Raleigh Lingeman, Indianapolis, Duke University and Indiana University; James Lorman, Connersville; John Lynch, Lafayette, University of Wisconsin; William McDaniel, Indianapolis; Gordon McLaughlin, Terre Haute; John Mackey, Evansville, Evansville College; Frank Miller, Indianapolis; Floyd Mohler, Dunkirk; Robert Molenda, South Bend; Guy Morford, Bicknell, Indiana State Teachers College; John Moriarty, Indianapolis; Mortimer Moseley, Pellville, Kentucky; Robert Moses, Worthington; Harlan Moss, Indianapolis; Ernest Murray, West Lafayette.

Richard Neff, Bluffton, Hanover College; William Noe, Seymour, Franklin College; Max Norris, Indianapolis, Butler University; Robert Osborne, Windfall; Harry Overesch, Lafayette; Paul Parker, Marion, Marion College; Joseph Pedicini, Newark, New Jersey; Robert Pickett, Noblesville; Robert Raber, Indianapolis; Edgar Rado, Indianapolis; William Ridgway, Evansville; Eugene Rifner, Spiceland; Robert Ronald, North Manchester, Hanover College; Willard Scantland, Richmond, Earlham College; Joseph Schetgen, New Castle, Ball State Teachers College; Daniel Schlesinger, Hammond, Northwestern University; John Scott, Indianapolis, Wabash College; John S. Scott, Richmond; Robert Scott, Indianapolis, Wabash College and Indiana University; Chester Seeright, Carmel, Butler University; Richard Shafer, Alexandria; Walton Shreeve, Muncie, DePauw University; William Simmermon, Lapel; Julia Simpson, Franklin, Franklin College; Ralph Singer, Indianapolis; Frank Sisler, Gary; Charles Smith, Indianapolis, Purdue University; James Snedecor, Ames, Iowa, Iowa State College and Indiana University; Beaufort Spencer, Muncie, DePauw University; Gaylor Stalter, Fort Wayne, Illinois Wesleyan and Indiana University; Louie Stein, Lexington, Hanover College; Robert Stewart, Sullivan, Butler and Indiana Universities; William Stogdill, Bluffton; Francis Stout, Muncie, Ball State Teachers College; Homer Swihart, Elkhart, Manchester College; Edward Szaulewicz, South Bend; Lloyd Terry, Coatesville, Central Normal College and Indiana University; Donald Trinosky, Gary, Indiana State Teachers College; Robert Turgi, New Castle; Walter Van Sickle, Indianapolis; Richard Veach, Bainbridge; John Visher, Evansville; Adolph Walker, Mishawaka, Indiana Central College; Lewis Walker, Indianapolis, Butler University; Gerald Wohlfeld, Indianapolis, Butler and Indiana Universities; Irvin Zeiger, Mishawaka; Stanley Zelmanovitz, Indianapolis, College of the City of New York; Geraldine Zix, Indianapolis, Butler University.

Deaths

Frank Frazier Hutchins, M.D., of Indianapolis, died in an Indianapolis hospital on February twenty-second, following a long illness. He was seventy-two years old. Dr. Hutchins was professor emeritus of psychiatry of the Indiana University School of Medicine. He was a valuable man in the formative years of the medical school. He was a member of the original clinical faculty, and in 1908, following the union of all medical education interests under the Indiana University School of Medicine, was a member of the committee which, with Dr. William Lowe Bryan as chairman, visited Johns Hopkins, Harvard, and other eastern medical schools while selecting the faculty of the Indiana University School of Medicine. He was appointed a member of the Executive Council and served continuously except for the years of the first World War, when as a psychiatrist he was sent to France. Following the armistice he served as Lieutenant Colonel in Washington. Dr. Hutchins was a member of the Marion County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

John Albert Martin, M.D., of Indianapolis, died February nineteenth at an Indianapolis hospital. Dr. Martin graduated from the Medical College of Indiana in 1894.

* * *

John E. Lawson, M.D., of Jeffersonville, died February fifteenth, at the age of eighty-seven years. Dr. Lawson graduated from the University of Louisville School of Medicine in 1874.

* * *

Lemuel I. Gist, M.D., of Coldwater, Michigan, formerly in practice with Dr. J. W. Bowers in Fort Wayne, died December fourteenth, 1941, at the age of forty-six. Dr. Gist was a graduate of the Eclectic Medical College of Cincinnati.

* * *

William Austin Buchanan, M.D., of Hammond, died February eleventh at the age of seventy-one. He was a graduate of the University of Nashville Medical School in 1899. Dr. Buchanan was a member of the Lake County Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

Make your reservations now for the
ANNUAL CONVENTION, INDIANA STATE MEDICAL ASSOCIATION
at French Lick
September 29, 30 and October 1, 1942

Society Reports

COUNTY MEDICAL SOCIETY OFFICERS

(Numerous reports were published in the January, February and March issues; these additional reports have been received since publication of those issues.)

BENTON COUNTY MEDICAL SOCIETY:
President, Virgil Scheurich, Oxford.
Secretary-Treasurer, V. L. Turley, Fowler.

JEFFERSON COUNTY MEDICAL SOCIETY:
President, Carl Henning, Hanover.
Vice-President, S. A. Whitsitt, Madison.
Secretary-Treasurer, Oscar A. Turner, Madison.

PORTER COUNTY MEDICAL SOCIETY:
President, E. J. DeGrazia, Valparaiso.
Vice-President, W. C. Butman, Hebron.
Secretary-Treasurer, Paul C. Vietzke, Valparaiso.

STARKE COUNTY MEDICAL SOCIETY:
President, J. L. DeNaut, Hamlet.
Vice-President, J. R. Matthew, Knox.
Secretary-Treasurer, J. F. DeNaut, Knox.

WHITE COUNTY MEDICAL SOCIETY:
President, J. P. Galbreth, Burnettsville.
Secretary-Treasurer, H. B. Gable, Monticello.

LOCAL SOCIETY REPORTS

Carroll County Medical Society members held a meeting at Flora on January eighth. Dr. J. L. Arbogast, of Lafayette, read a paper entitled "Laboratory Angle of Medicine." Six members were in attendance.

At a meeting held February twelfth at Burrows, the speaker was Dr. L. E. Harris, of Lafayette, who read a paper on "Common Pediatric Problems in General Practice." Eight members attended this meeting.

* * *

Dearborn-Ohio County Medical Society members held a meeting at the Maple Inn, Aurora, on January fifteenth. The speaker, Dr. E. P. Drohan, presented a case report. Fifteen members attended the meeting.

At a meeting held January twenty-ninth, the new county welfare set-up was discussed. Seventeen members were present at this meeting.

* * *

Delaware-Blackford County Medical Society members held a meeting at the Hotel Roberts, Muncie, on February seventeenth. The speaker, Dr. Joseph L. Larmore, of Muncie, read a paper entitled "Common Diseases of the Eye." Twenty-five members were in attendance at this meeting.

* * *

Fort Wayne (Allen County) Medical Society members held a meeting in the Chamber of Commerce Building, Fort Wayne, on March third. The speaker, Dr. S. W. Becker, of Chicago, read a paper on "Allergic Aspects of Dermatology."

Fountain-Warren County Medical Society members met at the Mudlavia Hotel on March fifth, the speaker being Dr. Herbert Call, of Indianapolis, who read a paper on "Infant Management." Nineteen members were present.

* * *

Greene County Medical Society members held a dinner meeting at the Freeman Hospital, Linton, on February twelfth. Dr. F. A. VanSandt, of Bloomfield, read a paper entitled "Uterine Malignancies." Twelve members attended the meeting.

* * *

Hamilton County Medical Society members held a dinner meeting at the Westfield Library on February tenth, Dr. A. F. Connoy, of Westfield, acting as host.

* * *

Indianapolis (Marion County) Medical Society members held a meeting in the auditorium of the medical school building, February seventeenth. This was a joint meeting with the staff of the Indiana University Hospitals.

* * *

At a meeting held February twenty-fourth at the Indianapolis Athletic Club, Dr. Michael M. Serota, of the Michael Reese Hospital, Chicago, discussed "The Present Clinical Status of Electroencephalography."

At the March third meeting, held at the Indianapolis Athletic Club, the following case reports were presented: "Case of Roseola Infantum," by Dr. J. W. Sovine; "Case of Placenta Previa," by Dr. David L. Smith; "Case of Carcinoma of the Right Colon," by Dr. W. D. Little; "Removal of Ureteral Calculus by Manipulation," by Dr. J. W. Hendricks; and "Surgical Excision of the Common Bile Duct," by Dr. J. K. Berman.

The March tenth meeting, held at the Indianapolis Athletic Club, was devoted to a symposium on occupational diseases, as follows: "Oil Dermatitis," by Dr. Allan Harcourt; "Effects of Volatile Solvents on the Industrial Worker," by Dr. Wayne L. Ritter; "Venereal Disease in Industry," by Dr. George Bowman; "Antisepsis in Industrial Wounds," by Dr. Charles H. Maly; and "Occupational Diseases Specifically Due to the Present War Effort," by Dr. L. W. Spolyar.

* * *

LaPorte County Medical Society members held a meeting at the Spaulding Hotel, Michigan City, on January fifteenth. Mr. E. R. Westphal discussed the subject of civilian defense. Twenty members were present.

At a meeting on February nineteenth, at the Rumely Hotel, LaPorte, Dr. Carl S. Culbertson, of South Bend, read a paper entitled "Physiology of the Kidney and Kidney Function Test."

Knox County Medical Society members held a meeting at the Jewel Cafe, Vincennes, on February seventeenth. Dr. M. H. C. Johnson, of Vincennes, reported a case of bone lesion. Twelve members were present.

* * *

The Northeastern Indiana Academy of Medicine members held a meeting in Kendallville, February twenty-sixth, the principal speaker being Dr. J. E. Conley, of Fort Wayne.

* * *

Parke-Vermillion County Medical Society members held their February meeting at the Vermillion County Hospital, Clinton, on the eighteenth. Dr. Allan K. Harcourt, of Indianapolis, read a paper on "Hand Infections." Eleven members attended this meeting.

* * *

St. Joseph County Medical Society members held a meeting at Hotel LaSalle, South Bend, February eighteenth. Dr. A. H. Lash, of Chicago, discussed old and new methods of treating complications of child birth.

* * *

Tippecanoe County Medical Society members held a meeting at the Lincoln Lodge, Lafayette, on March tenth. The speaker, Dr. Carl P. Huber, of Indianapolis, read a paper on "Obstetric Problems in Tippecanoe County." The paper was discussed by Dr. Howard B. Mettel, of Indianapolis. Forty members were present at this meeting.

* * *

Tri-County Medical Society members held a dinner meeting at Shoals Tavern on February twenty-fifth, at which vaccination and immunization was discussed. Thirteen members were present.

* * *

Wayne-Union County Medical Society members held a meeting at the Richmond-Leland Hotel, Richmond, February nineteenth. The speaker was Dr. Arthur Skeel, former head of the Obstetrical Department of St. Luke's Hospital, Cleveland. Twenty-three members attended this meeting.

* * *

Whitley County Medical Society members held a meeting at Columbia City on February tenth. Dr. A. Hasewinkle, of Fort Wayne, discussed "Thiocyanite Treatment of Hypertension." Ten members were present at this meeting.

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

DEFEND AMERICA

With Defense Bonds

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

WOMAN'S AUXILIARY

President—Mrs. Ernest O. Nay, Terre Haute.
President-Elect—Mrs. Arnold Duemling, Fort Wayne.
Corresponding Secretary—Mrs. Don M. Mattox, Terre Haute.
Treasurer—Mrs. T. R. Hayes, Muncie.

It is only a matter of a few more months until the members of the Woman's Auxiliary to the American Medical Association will be arriving in Atlantic City, New Jersey, for their Annual Convention, June 8-12.

Have you made your reservations? If not, send your request *at once* to Haddon Hall, Atlantic City, New Jersey.

Those of you who attended last year's American Medical Association meeting in Cleveland undoubtedly remember the oft-repeated suggestion, "Learn more about, and promote friendlier relations with, our neighbors to the south of us." In the spring issue of our BULLETIN, Mrs. Ewell, the editor, presented a Pan-American section with articles "solicited to provide additional material and inspire interest in the public relations study program on Pan-American relations. This program was designed primarily to promote interest in the study of medical and social problems of other American nations, as well as provide means whereby harmonious cooperation on such problems may result."

Mrs. Souren H. Tashian, a member of the National Committee On Press and Publicity, was asked to contribute an article, the material for which she obtained from medical authorities and laymen during an extended visit in Ecuador. Here are some of her observations. Ecuador, formerly avoided by tourists and sailors because of the prevalence of yellow fever, has now conquered this menace to a great degree, thanks to the work of Noguchi and his associates, and the assistance of the Rockefeller Foundation. Hookworm still flourishes, due to economic difficulties in obtaining shoes. Shoes made locally are scarce and dear, and imported ones are so expensive, because of high tariffs and unfavorable exchange rates, that most of the people are unable to supply themselves with the foot covering necessary to prevent hookworm. Even bubonic plague was until very recently a constant prey upon Ecuadorian health, because rats had easily found refuge among the bamboo buildings on the seacoast and were difficult to eradicate. The cities are adequately supplied with physicians, but there are very few in the outlying districts. There are now three medical schools in Ecuador, training about two thousand medical students. A large hospital offers a three-year nurses' training course, and most of the students are men. An excellent modern pharmaceutical laboratory adjoins the hospital, and there are prepared many of the medicines, vitamins,

vaccines, culture media, etc., which are needed in the hospital work.

Health and medical care in Mexico were considered in an article by Mrs. W. Decker Smith, who drew her material from her experiences as a traveler in Mexico. Mexico City has a new Department of Health, which is too young for the extent of its influence to have been evaluated. It also has a tuberculosis hospital and leper colony, which have an excellent rating. In the more remote districts where trained physicians are less numerous, herb remedies and treatments based on superstitions are more often in favor.

Women of the Kentucky auxiliary really took to heart the suggestion that was made last summer. They planned a Pan-American luncheon for their state convention last fall, and made it a tremendous success. Decorations, costumes, dancers, and music provided the local color, while the meat of the program was an address on "Our Stake in Latin America." The enthusiasm of the Kentucky women makes it seem an excellent suggestion for all of us to remember.

COUNTY NEWS

The Allen County history of the pioneers in medicine has been started by Mrs. E. M. Van Buskirk. For the Red Cross, the Auxiliary is making a cross file of all individuals who have qualified in junior, standard and advanced first aid. The index of names is being filed by streets, precincts and townships, so that in case of need it will be a simple matter to rush the nearest person, qualified in first aid assistance, to the victim. They will also make a map, with pins showing the locality of such help. Four Auxiliary members will be in the Red Cross Office each half-day until the work is completed. Mrs. E. A. King has been named chairman of the Allen County Nutrition Council for Defense. Dr. Jessie C. Calvin, another member of the Auxiliary, also has been named to the Council. Mrs. King, a graduate of Purdue, was dietitian at the Methodist Hospital before her marriage to Dr. King. The March meeting of the Auxiliary was a dessert-supper meeting at the Methodist Hospital. The program consisted of a symposium on "Nutrition for Defense," arranged by Mrs. King.

Sewing for the hospital was the project for the monthly meeting of the Delaware-Blackford Medical Auxiliary, held at the Ball hospital.

"The Big Family" was the book reviewed by the LaPorte librarian at the meeting of the Woman's Auxiliary to the LaPorte County Medical Society. The dinner and meeting was held at the Rumley Hotel, LaPorte.

Members of the Woman's Auxiliary to the Marion County Medical Society entertained their husbands at dinner on February twenty-eighth, at the Indianapolis Athletic Club.

BOOKS RECEIVED

THE CONQUEST OF BACTERIA—From Salvarsan to Sulphapyridine. Edited by F. Sherwood Taylor. 178 pages. Illustrated. Cloth. Price $2.00. The Philosophical Library and Alliance Book Corporation, New York, 1942.

* * * *

METHODS OF TREATMENT IN POSTENCEPHALITIC PARKINSONISM. By Henry D. von Witzleben, M.D. 164 pages. Price $2.75. Cloth. Grune & Stratton, Inc., New York, 1942.

* * * *

COMMUNICABLE DISEASE NURSING. By Theresa I. Lynch, R.N., Ed.D., Instructor in Education, New York University. 678 pages, with 156 text illustrations and 5 color plates. Price $3.75. The C. V. Mosby Company, St. Louis, 1942.

* * * *

SYMPTOM DIAGNOSIS—Regional and General. By Wallace Mason Yater, A.B., M.D., M.S. (in Med.), F.A.C.P. Professor of Medicine and Director of the Department of Medicine, Georgetown University School of Medicine. Fourth Edition. 900 pages. Fabrikoid. Price $10.00. D. Appleton-Century Company, Inc., New York, 1942.

* * * *

A PRIMER ON THE PREVENTION OF DEFORMITY IN CHILDHOOD. By Richard Beverly Raney, B.A., M.D., Associate in Orthopaedic Surgery, Duke University School of Medicine. 188 pages. 88 illustrations. Cloth. Price $1.00. National Society for Crippled Children, Inc., Elyria, Ohio, 1941.

* * * *

ESSENTIALS OF GENERAL SURGERY. By Wallace P. Ritchie, M.D., Clinical Assistant Professor, Department of Surgery, University of Minnesota Medical School. 813 pages with 237 illustrations. Cloth. Price $8.50. The C. V. Mosby Company, St. Louis, 1941.

It is indeed refreshing to review a textbook on general surgery which approaches the subject from a critical physiological point of view. Too many of our modern texts treat the principles back of surgery as being of minor concern and wade into the technical details of complicated operative procedures with a facility which gives the reader an entirely false evaluation of the subject. The feats of the spectacular operative surgeon are numbered. It is hoped that they will be replaced by more careful procedures, planned cautiously on a physiological basis. Dr. Ritchie has achieved a notable step in this direction.

The book was primarily compiled for the undergraduate student of surgery. For this purpose the reviewer knows of none better. It also is an excellent reference manual for those in the practice of general surgery. The book is completely abreast of the recent medical literature. This is particularly evident in the chapters on shock, burns and intestinal obstructions. The subjects are approached in a cautious, fact analyzing manner rather than one which is didactic and by rule of thumb.

It is quite evident that no single text on general surgery can be complete or adequate to cover this immense field. Such knowledge is not so easily obtained. This book does, however, contain a very satisfactory introduction to the subject.

An enormous number of conditions are discussed. One criticism might be that quite a number of these are covered too briefly. Likewise, no gynecological problems are discussed, although the author goes far enough afield from general surgery to include urology, orthopedic surgery and the central nervous system.

It is hoped that the author will keep subsequent editions up to date as satisfactorily as this first edition, and that the physiological approach will be preserved.

F. W. T.

ABSTRACTS

REPORTS SURGICAL EXPERIENCE AT PEARL HARBOR ON DECEMBER 7

A postoperative mortality rate of 3.8 per cent among a very large number of seriously wounded victims of the Pearl Harbor attack on December 7 who were treated in a military hospital is reported in *The Journal of the American Medical Association* for February 28 by John J. Moorhead, M.D., New York. The publication of his paper has been authorized by the Office of the Surgeon General of the United States Army.

"The results," he declares, "were better than I had ever seen during nineteen months in France when serving with the French, Belgian and American medical formations."

Dr. Moorhead explains that "I had arrived in Honolulu on December 3 at the invitation of the Honolulu Medical Society to give a course of lectures on 'Traumatic Surgery.' By a strange coincidence the second lecture was entitled 'Treatment of Wounds, Civil and Military,' and this was given on Friday night, December 5, approximately thirty-six hours before the attack. An audience of about three hundred attended, and a large proportion represented the Army and Navy medical personnel."

He says that in his lecture he discussed principles of treatment which were based on experience in World War I and also in civil practice. "No one then thought that these principles of treatment were so soon to be put to a large scale test in a proving ground only a short distance from the lecture platform," he observes.

"When we began work on the morning of the attack there was the inevitable confusion caused by the influx of a large number of casualties, but very soon eight operating teams were on duty and most of us operated continuously for eleven hours. We were relieved by another group, and by this time a six hour shift was started; later this became a four hour tour. Most of the operations were performed by the civilian surgeons at the onset, as the regular hospital personnel were engaged in the essentially important triage, shock ward work and treating the walking wounded so that they might be discharged to duty. I was restored to temporary active duty in the Army Medical Corps as Colonel, Surgical Consultant, soon after the attack began. . . ."

The casualties were numerous, varied and severe. The majority were the result of bombing or machine gun attack. The embedded foreign bodies were of variable size and depth. Indwelling foreign bodies were not searched for unless accessible, but subsequently were sought and in many instances successfully removed. Of particular interest is Dr. Moorhead's report that in two cases in which a machine gun bullet had lodged within the spinal canal the bullets were successfully removed.

"In one of these I would have failed had it not been for the aid afforded by the 'locator.' This is an electromagnetic induction apparatus about the size of a portable radio and it functions after the manner of a detector of buried metals. It was developed for me by a very clever technician of the New York City Transit System, and I gave it a successful trial at the Reconstruction Hospital Unit of the New York Post-Graduate Hospital just before leaving for Honolulu. This initial demonstration was in the case of a police officer who had been in the bombing incident at the New York World's Fair in July, 1939. At this first test of the 'locator' I was able to locate and remove several small metallic fragments from the region of the ankle, and purposely the x-ray films were not used as additional guides. This apparatus is highly sensitive for fragments of iron, steel, brass and copper, as well as for silver and aluminum, and less so for lead. It indicates the foreign body on the surface by a dial and also registers the subsurface depth almost equally well. The wandlike finder or probe can be sterilized and introduced into the wound if necessary. It was by this last named application that I found the aforementioned intraspinal bullet.

"On two successive days during a calm period we gave this apparatus a very severe test in our hospital group, and it proved helpful in twenty-two cases in which operations were performed by the chief of the surgical service and his assistants. The original apparatus is in Honolulu, but another even more responsive has been tested, and soon the device will be available commercially. . . ."

In summarizing his report Dr. Moorhead says that most of the fatalities in the cases treated in the military hospital in which he operated were those suffering from internal abdominal wounds and those depleted by shock and hemorrhage. There were no deaths from gas gangrene and discharge of pus from the wounds was almost absent, "so much so," he says, "that it became a subject of universal comment. There were no cases of tetanus, local or general, and the state of well being of the wounded was exceptional after the first few days.

"On January 3 in a San Francisco hospital I visited a large group of wounded we had evacuated on Christmas day, and they were all doing exceedingly well. Their condition elicited a special report to headquarters. Hence the follow-up is sufficiently prolonged to permit evaluation of the end results."

Dr. Moorhead believes that the outcome of the cases was dependent on:

"(a) Early receipt of the wounded—within the 'golden period' of six hours.

"(b) Preliminary shock treatment.

"(c) Adequate débridement with no primary suturing.

"(d) Use of sulfonamide drugs in the wound and by mouth.

"(e) Adequate after-care.

"Other factors which aided were:

"(a) Absence of puttees; the incidence of driven-in dirty apparel was thereby lessened.

"(b) Climatic conditions.

"(c) Early hour of the attack; Sunday morning, and the men were clean and were not war worn.

"(d) Few flies.

"Our greatest defect was inability to give better preoperative shock treatment to a larger number of the seriously wounded.

"The outstanding features in this initial outbreak of World War II were the morale of the wounded, the unusual skill of the surgeons and the devoted service of the nursing and other hospital personnel.

"It is a duty and a proud privilege to pay tribute to those who served, and no directing surgeon ever had better cooperation."

SAYS COMMUNICABLE DISEASES ARE BIGGEST DEFENSE PROBLEM

"Communicable diseases, including those which are primarily pediatric conditions, are a far greater problem of defense and war than are injuries incurred in battle," Wilburt C. Davison, M.D., Durham, N.C., declares in the November issue of *War Medicine*, in an article suggesting a program for combating such conditions. *War Medicine* is a bimonthly publication published by the American Medical Association, Chicago, in cooperation

(Continued on page XIX)

(Continued from page 240)

with the Division of Medical Sciences of the National Research Council, Washington, D.C.

"Perhaps in the present emergency a consulting pediatrician who has had experience in preventing communicable diseases among children should be appointed," Dr. Davison says. "In the light of the figures on the frequency of children's diseases in the Army and Navy during the last war, this suggestion is not as foolish as it may seem."

Communicable diseases in both the Army and the Navy of the United States during World War I, he points out, were responsible for more hospital admissions, deaths and days lost than were injuries of battle. One in every 3 soldiers and sailors had one or more of these diseases, and 1 in every 133 in the military and naval services died of infectious disease.

"Although the influenza, pneumonia, bronchitis and tonsilitis of the epidemic of 1918 were responsible for most of the morbidity and mortality," Dr. Davison says, "half a million soldiers and sailors were affected by the purely pediatric diseases, especially mumps, measles, scabies, rheumatic fever, vaccinia, rubella, scarlet fever, diphtheria, meningitis, dysentery, impetigo and chickenpox, in that order. These twelve children's diseases affected twice as many men in the Army and Navy as did wounds and half as many as did influenza. To reduce this incidence of infectious diseases in troops, pediatricians would recommend the adoption of the preventive measures which have been found to be efficacious for children. Some of these precautions at present are being used in the Army and Navy, but more of them should be applied. . . ."

Dr. Davison makes the following specific recommendations: as soon as a recruit is inducted in the service he should have tests for diphtheria, scarlet fever, tuberculosis and syphilis, be vaccinated against smallpox and be inoculated with typhoid-paratyphoid vaccine and tetanus toxoid or a combined tetanus-diphtheria toxoid. A skin test for sensitivity, of course, should be done first. Alternate recruits should receive influenza vaccine in order that data on its immunizing value may be collected.

"These cutaneous tests and inoculations," he says, "can be done by the physicians at the induction board's headquarters, and the results can be read forty-eight to seventy-two hours later by the camp physician and recorded on the recruits' service records."

He also advises that the efficacy of the immunization against diphtheria should be tested three months after the inoculations and that the scarlet fever tests should be repeated annually. If these tests become positive, inoculations should be repeated. Regarding tests for tuberculosis, he says that x-ray films of the chest without tuberculin tests are not nearly as accurate in the diagnosis of the disease and he advises that both be used.

Regarding the service records, Dr. Davison advises that the dates of inoculations, the results of the tests and an accurate statement that the recruit has or has not had measles, German measles, chickenpox, mumps, whooping cough, scarlet fever and rheumatic fever be entered thereon. As to the reliability of information on these diseases obtained from the recruit, he says that the facts can easily be verified by the local draft board from the recruit's parents and family physician during the interval between his placement in class 1-A and his induction. He goes on and says that if there is any doubt about the history, the recruit should be assumed to be susceptible.

"These service records," the author suggests, "should be summarized in advance and lists made of the recruits who are susceptible to each disease, especially mumps and measles, as they affected 353,328 soldiers and sailors in the last war. Usually the percentage of soldiers who have had contagious diseases is low for youths from the country and high for those from cities, because of the greater exposure of the latter. However, the crowded

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"This is one check I never mind writing. After the threatened suit against me a couple years ago and your prompt action in thwarting it, I realize what value and protection it brings."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

COOK COUNTY GRADUATE SCHOOL OF MEDICINE

(In affiliation with COOK COUNTY HOSPITAL)

Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique with practice on living tissue, every two weeks throughout the year. General Courses, One, Two, Three and Six Months; Clinical Courses; Special Courses. Rectal Surgery every week.

MEDICINE—Two Weeks Intensive Course will be offered starting June 1st and October 5th. Two Weeks Course in Gastro-Enterology will be offered starting June 15th and October 19th. Two Weeks Intensive Course in Electrocardiography and Heart Disease starting August 3rd.

FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting May 4th, June 29th and September 21st. Informal course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting June 15th and October 19th. One Month Personal Course starting August 3rd. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting October 5th. Three Weeks course starting May 25th and August 10th. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14th. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28th. Five Weeks Course in Refraction Methods starting May 11th and October 19th. Informal Course every week.

ROENTGENOLOGY—Courses in X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore St., Chicago, Ill.

school buses of the consolidated county schools may make up for the crowded city streets. . . ."

Regarding objections that may be raised that such elaborate precautions will delay the training program of the recruits, Dr. Davison says among other things that "Surely the 2,482 deaths from measles among the soldiers and sailors in the last war would justify the trial of preventive measures in spite of the time they might consume or the difficulties involved. This plan is not impracticable, and the need for speed and other military factors during mobilization should not prevent its utilization for large as well as for small commands. The measures suggested, in addition to reducing the deaths from children's diseases, actually would save time. With the methods used in the last war, which have not been materially changed, 9,374,334 days were lost through children's diseases, quarantine and carrier programs (two days per man). Knowing which troops have had and are immune to these diseases will eliminate many erroneous diagnoses and prevent far more loss of time because of unnecessary quarantine than will be taken up by the program outlined. If the 'days lost' are reduced by only 10 per cent, the result will compensate for these precautions. If they are put into effect, the reduction will be much more than 10 per cent, though even pediatricians are not optimistic enough to expect to eliminate all communicable diseases. . . .

"As an example of the operation of the plan suggested, if measles breaks out a pediatrically trained medical officer will follow the procedure used in most children's hospitals, namely to round up all possible exposed persons whose records indicate that they have not had measles and to give them convalescent serum, first doing a cutaneous test for sensitivity to human serum and desensitizing if necessary. This is in contrast to the quarantining of thirty-seven of the two hundred and eighteen barracks which was recently done in one of the camps. . . ."

PREMARITAL EXAMINATION LAWS IN UNITED STATES

Details of operation of the thirty premarital examination laws now in effect in the United States, summarized in *The Journal of the American Medical Association* for March 7 by George F. Forster, Ph.D., and Howard J. Shaughnessy, Ph.D., Chicago, illustrate, they say, "the difficulties which are in many cases imposed on those who cross state lines in order to marry. These difficulties arise chiefly from the lack of reciprocity in the acceptance (1) of laboratory reports from out of state laboratories and (2) of examination certificates signed by out of state physicians."

Interstate marriages are common in normal times and are now considerably increased as a result of the translocation of many eligible young men in the army camps, they explain. The layman often does not understand that he can best secure authentic information about the procedure in another state from the health department of that state. The data presented by the two men in their article now makes it possible for laymen to obtain authentic information from the thousands of physicians who receive *The Journal* as well as from health departments.

LIST SYMPTOMS AND SIGNS INDICATING EARLY NUTRITIONAL FAILURE

"Early nutritional failure"—early deficiency states—is probably far more prevalent among the population of the United States than is generally recognized, the Subcommittee on Medical Nutrition, Division of Medical Sciences, National Research Council, says in a report published in *The Journal of the American Medical Association* for February 21.

In the report are lists of the symptoms and signs suggestive of early deficiency states in infants and children and in adolescents and adults. The Subcommittee warns that no symptoms or physical signs can be accepted as diagnostic of early nutritional failure. It says, however, that symptoms and signs "When verified by a competent physician and when other possible causes have been ruled out should be considered as significant indications."

Those symptoms in infants and children which parents or teachers might observe are as follows: Lack of appetite, failure to eat adequate breakfast, failure to gain steadily in weight, aversion to normal play, chronic diarrhea, inability to sit, pain on sitting and standing, poor sleeping habits, backwardness in school, repeated respiratory infection, abnormal intolerance of light and abnormal discharge of tears. The physical signs are bad posture and sores at angles of the mouth.

The symptoms in adolescents and in adults are as follows: Lack of appetite, lassitude and chronic fatigue, loss of weight, lack of mental application, loss of strength, history of sore mouth or tongue, chronic diarrhea, nervousness and irritability, burning or prickling of skin, abnormal intolerance of light, burning or itching of eyes, abnormal discharge of tears, muscle and joint pains, muscle cramps and sore bleeding gums.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, January, 1942

Diseases	*Jan. 1942*	*Dec. 1941*	*Nov. 1941*	*Jan. 1941*	*Jan. 1940*
Tuberculosis, Primary	16	0	3	0	0
Tuberculosis, Active	147	74	110	84	74
Tuberculosis, Arrested	8	5	8	0	0
Chickenpox	377	271	325	422	336
Measles	214	86	63	277	38
Scarlet Fever	516	353	378	488	667
Smallpox	14	11	3	8	25
Typhoid Fever	8	6	12	8	3
Whooping Cough	222	92	142	81	131
Diphtheria	50	32	98	51	79
Influenza	210	116	143	1547	154
Pneumonia	104	79	52	146	117
Mumps	124	26	26	132	392
Poliomyelitis	6	3	15	5	3
Meningitis	3	2	5	3	4
Rubella	6	3	3	0	0
Tularemia	9	67	6	9	30
Undulant Fever	2	2	4	1	3
Tetanus	1	0	0	0	0
Ophthalmia Neonatorum	1	0	0	0	0
Actinomycosis	1	0	0	0	0
Rheumatic Fever	5	0	0	0	0

Zemmer
OAKLAND, STATION
PITTSBURGH, PA.

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled.

Write for general price list.
Chemists to the Medical Profession. IN 4-42

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 MAY, 1942 NUMBER 5

OPHTHALMOLOGY: PAST, PRESENT AND FUTURE*

NOEL S. McBRIDE, M.D.

TERRE HAUTE

The history of man's achievements is a record of persistent improvement. Frequently his progress has been painfully slow; at times his momentum has been insufficient to surmount the obstacles, and he has temporarily fallen back. But after accumulating fresh enthusiasm and making new discoveries he has invariably pushed forward. *The obstacles were stepping-stones to higher attainments.*

The history of ophthalmology follows a similar course. From the days of Hippocrates to the nineteenth century the advancement of knowledge was faltering, and often it was completely stationary.

Ophthalmology was revolutionized, as was all medicine, by the work of the great clinicians and investigators of the last century. It was their work which established this phase of medicine as a specialty. During the same period most of the large eye hospitals of this country were established. These institutions were the centers of education, and their influence was important in raising the standard of practice.

In 1892, Alexander Duane translated Professor Fuchs's great textbook on diseases of the eye, and it soon became known as the bible of ophthalmologists. Study of this book undoubtedly produced a generation of eye physicians who understood the physiology and pathology of the eye better than their predecessors. Terminology was standardized to a greater degree, and this naturally led to a common ground for discussion of mutual problems. And, incidentally, study of this popular textbook stimulated many men to literary efforts of their own. *The innovations of yesterday become the fundamentals of today and the inspirations for tomorrow.*

Increased interest in ophthalmology led many physicians to limit their work to diseases of the eye, or to those of the eye, ear, nose and throat. Since there were no recognized requirements to be met by those desiring to enter this field of medicine, many who were not qualified took advantage of this situation. A few had excellent training in this country or abroad. Many had fair training and continued their studies and dispensary work while engaged in private practice. Unfortunately, there were also many who entered this specialty with inadequate training and little desire to increase their knowledge or improve their skill. Some of them had only a few short weeks of special instruction after leaving general practice.

Leaders in the profession recognized the limitations of available training and the inadequacy of many who were engaged in ophthalmic practice. In 1913 committees were appointed by the American Academy of Ophthalmology and Otolaryngology, by the Section on Ophthalmology of the American Medical Association, and by the American Ophthalmological Society to report on the state of ophthalmic education. The following year these groups recommended that medical schools establish graduate courses in ophthalmology, leading to appropriate degrees, and that these courses should represent not less than two years of systematic work subsequent to taking the degree of Doctor of Medicine.

In 1915 the committees further recommended that a board of examiners be created. In 1916 such a board was established, with representatives from each of the three sponsoring societies. It was first known as the American Board for Ophthalmic Examinations, and it was later named the American Board of Ophthalmology. The chief functions of the board were stated to be, first, to establish standards of fitness to practice ophthalmology; second, to arrange, control, and conduct examinations to test the qualifications of those who desire to practice ophthalmology; and third, to confer a

* President's address presented before the Indiana Academy of Ophthalmology and Otolaryngology at their annual meeting in Indianapolis on April 1, 1942.

certificate upon those who meet the standards which are established from time to time.

The benefits of this well-planned and carefully organized program were delayed to some extent by our country's entrance into the first World War. While physicians were serving in the Army, they were unable to give time or thought to these more peaceful interests, but after leaving the Army in 1919 and 1920, many physicians decided to specialize in their work rather than to return to general practice. *In that way, it seems that our participation in the war actually stimulated the advancement of ophthalmic as well as other medical education.*

During the early post-war period several medical schools inaugurated systematic courses in ophthalmology. In addition to these courses of instruction, many of the larger general hospitals established residencies in eye or in a combined service of eye, ear, nose and throat. Many young clinicians have received invaluable training by availing themselves of either one or both of these educational opportunities, the hospital residency or the university graduate course.

This brief review of the progress that has been made in training ophthalmologists brings us to the present time and permits a consideration of tomorrow's problems. The future of the medical practice we have known seems to hang in the balance. Many baleful influences have assailed it in recent years, and others are only beginning to appear.

We are all familiar with the efforts of the politically-minded social reformers who have worked for state medicine. That threat has been postponed because of the present war. We shall probably be free of the menace for the duration, although a prolonged conflict might afford an excuse to attempt to socialize the practice of medicine as a so-called "defense measure."

We must anticipate and forestall an effective reorganization of these restless forces of social change at the close of this war. A world-wide depression accompanied by political adjustments will give the agitators and bureaucrats a made-to-order background for launching their destructive program; we may be assured that they will not rest until the medical profession has been brought under state domination. A physician might then hold a position comparable to that of a civil service appointee. *The incentive for individual ambitious effort would be gone, and the quality of medical service would decline. The public would suffer.*

With such a prospect before us there are none of us who will not oppose all forms of governmental control. We shall not stand by idly and see the attainments of generations of physicians nullified. Complacency recently has been shown to be a vice and not a virtue. Let us guard against these dangers in two broad and fundamental ways: first, by assuming a militant vocal leadership in the public's health and medical problems; and second, by developing a greater spirit of co-operation among ourselves, both within our specialty and among our colleagues in other fields of medicine. *A wholly united front is necessary if we are to swing and hold the balance of public opinion in favor of perpetuating the advantages of the personal relationship between the patient and his physician.*

We must remember that our purpose in this struggle is to preserve our profession's scientific achievements, improve our standards of practice, and insure the wholesome progress of ophthalmology as well as that of all medicine.

ABSTRACTS

WARNS AGAINST A DANGEROUS PROCEDURE

A warning that the treatment of a ganglion, a sac-like tumor on a tendon, by injection of caroid, a vegetable pepsin, is a dangerous procedure is sounded by J. Albert Key, M.D., St. Louis, in *The Journal of the American Medical Association* for February 14.

He reports the case of a patient with a ganglion on the back of her wrist into which was injected caroid and the resulting liquefied material subsequently withdrawn by suction in accordance with the procedures recommended in such use of caroid. Infection, however, developed and the patient now has a definite disability of the hand. Dr. Key says the caroid used was found to be heavily contaminated, as were two other samples of the material obtained elsewhere. He says he does not believe the sterilization of the product as recommended by the manufacturer is adequate for material which is to be injected into tissues. "If it cannot be sterilized completely without destroying the enzyme, it should not be sold for injection or implantation in wounds," Dr. Key declares.

VITALLIUM PLATES FOR SKULL DEFECTS

The use of stock plates of vitallium to repair defects of the skull appears to be satisfactory, Claude S. Beck, M.D., Cleveland, declares in *The Journal of the American Medical Association* for March 7 in a preliminary report which he says is made because such plates might be useful in the care of war wounded. "In the absence of infection," he says, "it might be possible to repair skull defects of war wounds at the primary operation."

Vitallium is an alloy of cobalt, chromium and molybdenum. As Dr. Beck points out in his report, the use of this material in repairing skull defects has been previously reported. "I had the idea of using plates made up in various sizes and kept in stock so that the surgeon could use them when needed," he says. These ready-made vitallium plates have been used by Dr. Beck in 4 cases, the first ones being put in place sixteen months ago, and have produced no evidence of tissue reaction.

TRACHOMA AND FOLLICULAR CONJUNCTIVITIS

E. L. VAN BUSKIRK, M.D.
LAFAYETTE

In 1939 a statistical report of the Department of Public Welfare Division of Blind Assistance revealed that ten per cent of the blind recipients were blind because of trachoma. Trachoma is a contagious disease and has been endemic in southern Indiana for years. We have no accurate way of knowing the approximate number of cases of trachoma because physicians have failed to report their cases to the Indiana State Board of Health.

The eye treatment program of the Department of Public Welfare reached the old trachoma cases among the indigent population. A few individuals were rehabilitated by this program, which included surgical correction of lid deformities and local and systemic chemotherapy to clear up secondary infection. This program should be extended to include children under eighteen years so that we might clean up the early cases. Early trachoma is contagious; the old cases are quiescent and probably harmless. With a program similar to that of the Illinois Trachoma Commission, or the campaign carried on in West Virginia by the Department of Public Assistance and the traveling eye clinic of Dr. J. A. Arbuckle, our problem of trachoma control would be solved. The incidence of trachoma in Indiana apparently is not great enough to excite the interest of the general public. Isolated rural groups have tolerated this condition for generations, but now, with the industrialization of southern Indiana, with the influx of many new families, poor housing and poor hygienic conditions, we can expect an increase in the incidence of trachoma.

TRACHOMA

Trachoma is a contagious disease that is overwhelmingly associated with dirt, squalor and intimate proximity of the poorer classes. No micro-organism has been obtained in pure culture which can be constantly and exclusively found in trachomatous lesions and which is capable of producing in man or animals the characteristics of the disease. The failure to find a micro-organism led, naturally, to the search for a filterable virus. In 1907, Halberstaedter and Prowazek, by means of Giemsa stain, demonstrated inclusion bodies in conjunctival epithelial cells in cases of trachoma. The inclusion bodies are found early in the disease and much controversy has taken place over their significance, some holding that they represent an actual virus and others that they represent specific cellular changes resulting from the activity of the virus.

Trachoma produces a chronic inflammation in all the tissues, mucous and submucous, in which the most striking features are a papillary hypertrophy of the epithelium, a lymphoid infiltration of the subepithelial tissues typically with the formation of follicles, and the subsequent proliferation of connective tissue resulting in scar formation. In trachoma the toxic agent acts upon the entire epithelial layer, conjunctival and corneal. These changes are pronounced in the palpebral conjunctiva, particularly near the fornix. At the limbus, changes of degeneration only are present in the early stages, whereas the bulbar conjunctiva is normal at this time except for nuclear changes of degeneration. According to Taborisky, these epithelial changes—transformation of type, degeneration, proliferation and exfoliation—are characteristic of trachoma; a histological diagnosis can thus be made in the first few days of the disease. The follicles are not characteristic, but in follicular catarrhs the epithelium remains intact from the start. These epithelial changes progress as the disease develops. The proliferative tendency becomes very marked and papillae are formed, the cells tending to maintain their characteristics in the depressions, but becoming many-layered and flattened on the summits where the surface cells readily become exfoliated. The follicles are the most striking part of the histological picture, but they are by no means specific, nor do they possess any special importance. They resemble, in their essential structure, the similar formations found in other follicular diseases. They are made up of a mass of mononuclear cells surrounded by a zone of small lymphocytes and contain giant histiocytic and phagocytic cells.

The cornea exhibits some of the earliest and most typical changes of trachoma in the formation of *pannus trachomatosus*. It has been argued whether these changes were specifically due to the disease or were non-specific mechanical effects of rubbing of the cornea by the rough upper lid; this probably accentuates it, but there is no doubt that the pathological changes are specific. It was generally accepted that the infection was a contact one from the tarsal conjunctiva, but, since the more recent demonstrations of the involvement of the conjunctiva bulbi, the possibility of direct extension is admitted. The occurrence of specific corneal infection is evident from the fact that some degree of pannus is present in every case of trachoma and that, in many cases, its earliest stages are detectable by the slit lamp contemporaneously with the appearance of the first signs of inflammation of the conjunctiva tarsi. These facts indicate that the infection of the tissue is specific and primary, not secondary and incidental.

Trachomatous pannus is a layer of new-formed vascularized tissue, rich in cells, which invades the cornea from the limbus. The initial changes, according to the biomicroscopical and histological studies of Busacca, occur in the epithelium, taking

the form of an avascular superficial keratitis. Following the epithelial disturbance, there is a subsequent vascular neoformation and lymphocytic cellular invasion of the cornea between the epithelium and Bowman's membrane. As the pannus increases, Bowman's membrane may be destroyed and the infiltration and vascularization extend deep into the substantia propria.

Trachoma usually begins imperceptibly and, for convenience, the general evolution of the disease was divided by MacCallan into four stages: (I) The early stage of infiltration. (II) The period of active inflammation from the time when the trachomatous changes become definitely recognizable until scar-tissue begins to appear; this stage may last some years. (III) The stage of scarring. (IV) The stage when healing seems to have been effected and no further inflammatory activity is evident.

As a rule the symptoms of trachoma develop gradually and insidiously, so much so that the presence of trachoma may escape notice until visual disturbance, due to corneal involvement, directs attention to the lid. The disease begins with moderate photophobia, pain and lacrimation, associated with a slightly purulent, gummy discharge which persists, varying in degree, during the course of the active stages, being always intensified if a secondary infection is superadded. In a general way the symptoms vary in intensity with the degree of corneal involvement and, so long as there is an active pannus, there is always irritation, increased when ulceration occurs in its advancing border. It is in the last stage, however, when entropion, trichiasis and xerosis develop, that the most unpleasant symptoms occur and many of these unfortunate subjects are condemned to the prospect of constant irritation for the duration of their lives. The course of the disease is always erratic; periods of quietude or spontaneous improvement are followed by relapses and exacerbations.

The most common conditions in which confusion in diagnosis may arise are the various forms of follicular conjunctivitis, including swimming bath conjunctivitis, or inclusion blennorrhea, and the palpebral type of spring or vernal catarrh. In none of these, however, do the following characteristic signs of trachoma appear: (I) The characteristic trachomatous pannus preceded by infiltration. (II) Blebs or follicles, which rupture on pressure, extruding their gelatinous contents. (III) Limbal follicles or their cicatricial remains. (IV) A softening of the tarsus and the sinuous lid border. (V) Cicatrization on the upper tarsal conjunctiva. Very early cases excluded, no case should be diagnosed as trachoma unless one or more of these signs are present; the combination of pannus with any one of them may be taken as pathognomonic.

The conjunctiva tends to react to irritation of any kind—chemical, toxic or bacterial—by lymphatic hyperplasia and the formation of follicles. Histologically, the follicles in a simple chemical irritation, in folliculosis and in trachoma in its early stages, are, to all intents and purposes, identical. True follicles are not to be confused with a condition of hypertrophied papillae. The follicles are new formation of lymphoid tissue with accessory vascularization; papillae are essentially vascular elements which have undergone lymphoid infiltration.

FOLLICULAR CONJUNCTIVITIS

Chronic follicular conjunctivitis is a catarrhal inflammation of the conjunctiva, of an infective nature, characterized by the presence of small discrete follicles, especially in the lower fornix, which runs a benign course to complete resolution, never involving scarring of the conjunctiva or corneal complications. Small, pale, rounded or oval follicles are marshalled in rows along the lower lid, raising up the mucosa in little mounds. Frequently, follicles are also seen in the upper lid near the proximal border of the tarsus, especially at its angles. Sometimes these are gathered together in lumps and they may assume considerable size. The follicles are similar to those occurring in trachoma; in contradistinction to this disease, however, the epithelium remains relatively normal, showing an increase in the layers and a tendency to the formation of papillae. The disease runs a long, protracted course, giving rise to symptoms of irritation, photophobia and a disinclination to use the eyes. In the course of some months, the follicles diminish in size and eventually, in from one and one-half to two years, the mucous membrane becomes quite normal again, no traces of past mischief being evident. The tarsal plate and cornea are never invaded and no cicatrization or deformity results.

The acute type of follicular conjunctivitis is characterized by a rapid onset, mild symptoms of irritation and photophobia, a preauricular adenitis and rapid and complete resolution. The discharge is minimal, serofibrinous in nature, and contains many mononuclear cells. The disease reaches its height in three to six days and subsides with complete resolution in one to three weeks.

INCLUSION BLENNORRHEA

Swimming bath conjunctivitis, or inclusion blennorrhea of the newborn, is a type of follicular conjunctivitis caused by a filterable virus. It has a slow onset and a leisurely clinical course, characterized by considerable hyperemia, slight discharge and preauricular adenopathy. Thygesen demonstrated intracellular inclusion bodies in the epithelial cells in inclusion blennorrhea and in the adult type of follicular swimming bath conjunctivitis. He also pointed out that the infection is usually of genital origin; in a non-specific type, catarrhal urethritis, the same intracellular inclusion bodies are found. The infection is conveyed directly to the new born or transmitted in swimming baths and institutions where oppor-

tunities for intimate contact abound, either through water or by articles of toilet. The pathological picture is that which we have seen to be common to the follicular inflammations of the conjunctiva, the histology being similar to early trachoma. The follicles are larger and are characterized by early degeneration, with widespread destruction of the epithelium. The disease comes on slowly after an incubation period of three to four days. It usually starts unilaterally with involvement of the second eye in two to three weeks. The bulbar conjunctiva is unaffected, the tarsal conjunctiva becomes rough and loses its transparency, and from the seventh to the tenth day the follicles appear, crowding the region proximal to the tarsus in close-packed formation. The disease reaches its height in three weeks and subsides, but the thickened hyperemic membrane persists for two months. Ocular complications are few; occasionally a superficial keratitis is noted, but no residual scars remain as evidence of a pre-existing disease.

VERNAL CONJUNCTIVITIS

Vernal conjunctivitis is a recurrent, bilateral, interstitial inflammation of the conjunctiva, of seasonal incidence and unknown etiology, characterized by flat-topped papules, usually on the tarsal conjunctiva, either discrete or confluent, accompanied by corneal involvement and associated with itching, redness of the eyes, lacrimation and a mucinous discharge usually containing eosinophiles. The theory that vernal conjunctivitis is a manifestation of an allergy has the most definite evidence to support it, but even that is not conclusive. The most striking point in its incidence is its seasonal character. In temperate countries with a cold winter it starts in May and June and subsides in the autumn, the winter months being free of symptoms. It occurs essentially between the ages of six and twenty years. The palpebral form attacks the tarsal conjunctiva, never involving the fornix, while changes in the lower lid are rare. In the early stages the entire conjunctiva is hyperemic, which is accompanied by a little discharge and intense itching. Hard, flat papillae of various sizes develop, discrete or clumped together, on the tarsal conjunctiva and are most numerous on the proximal border. The conjunctiva takes on a glazed appearance with a milky veil lying in the mucous membrane. The bluish color is accentuated in the furrows between the papillae, giving the appearance aptly described as that of old-fashioned paving with cobble-stones over which milk has been spilt. On the outside of the lids there is no disturbance, but a certain amount of ptosis is common, giving the patients a sleepy appearance. Corneal involvements are not uncommon; they are secondary in origin, for the disease does not attack the cornea primarily. They may be classified as (1) direct extension of limbal lesions or (2) as secondary dystrophies due to disturbance of nutrition of the corneal tissue. The epithelium overlying the conjunctival papillae becomes considerably thickened and hypertrophied, with subsequent hyaline degeneration and lymphocytic infiltration. The symptoms of vernal conjunctivitis may be very slight. The most prominent symptom is burning and itching, usually of a very unpleasant and intolerable type, becoming accentuated when the patient comes into a warm, humid atmosphere. This symptom bears no relation to the extent of the pathological lesion. The other symptoms are mild photophobia, lacrimation, presence of typical stringy discharge, and a peculiar heaviness of the lids. The main difficulty is the differential diagnosis from trachoma, where, however, the granulations are oval rather than flat, red rather than milky, situated preferentially in the fornix and associated with a vascularized pannus which persists permanently and is frequently complicated by ulceration. After several seasonal attacks, vernal conjunctivitis tends to die away spontaneously and only in the recalcitrant cases will the cornea be grossly affected.

SUMMARY

The biomicroscope and slit lamp are indispensable aids in differential diagnosis of trachoma and the types of follicular conjunctivitis. Only in trachoma do we find infiltration and vascularization of the cornea, and these changes make their appearance simultaneously with the conjunctival infiltration. In these non-bacterial infections smears show intracellular inclusion bodies in both early cases of trachoma and in swimming bath or inclusion blennorrhea. Eosinophiles predominate in vernal catarrh, and bacteria may be present as evidence of secondary infection.

Early recognition and active treatment with sulfanilamide in all trachoma cases is the responsibility of all health authorities and the medical profession.



Own a share in America.
If your flag falls, you lose your freedom.
You can preserve that freedom by buying
United States Defense Bonds and Stamps.

THE EYES AND THE MILITARY SERVICES

MYRON S. HARDING, M.D.
INDIANAPOLIS

Many young men of military age are consulting Indiana physicians to inquire whether their eyes are suitable for certain branches of the military services. The Army, Navy, Air Corps, Marine and Coast Guard services require varying degrees of visual efficiency for their members, and it is hoped this outline of ocular requirements for these branches of military service will be of assistance to the physicians of Indiana.

For determination of visual acuity, a standard Snellen chart is usually used. This is composed of letters which subtend a visual angle of 5 feet at the respective distances at which a normal eye should distinguish the letter. The width of the component limbs of the letters subtends an angle of 1 foot, which is the minimum visual angle of the normal eye. The chart should be evenly illuminated with at least 7-foot candles of light and placed level with the patient's eyes. If the size of the room permits, the chart should be 20 feet from the individual; if only 10 feet, a reverse Snellen chart may be placed back of the patient and he can read the reflections in a mirror. The chart should not be exposed until the patient has covered one eye, and the visual acuity of the eyes should be tested separately without and with correcting lenses.

The visual acuity is recorded as a fraction, the numerator of which represents the distance between the patient and the chart, the denominator represents the distance at which the smallest line read by the patient should be read by a normal eye. The fraction 20/20 represents normal visual acuity. This does not indicate the existing fraction of normal vision, it is simply a record of the findings at a given distance. Many young individuals are able to read the 15-foot or even the 10-foot line at a distance of 20 feet. In these instances the visual acuity would be recorded 20/15 or 20/10, respectively.

A visual acuity of 20/40 indicates that at a distance of 20 feet from the chart the individual was able to read the letters which a normal eye should read at 20 feet. If at a 20-foot distance the patient was able to read the large letter at the top of the chart, the acuity would be recorded as 20/200. Instead of recording vision in this manner, the Navy and Marine Corps require recording the distance at which the individual was able to read the letters in the 20-foot line. For example, if the candidate was unable to read the letters in the 20-foot line at a distance of 20 feet, he steps 2 feet closer to the chart, and if then able to read the 20-foot line correctly the visual acuity is recorded 18/20. If he has to be 15 feet away from the chart in order to read the 20-foot line, the acuity is considered 15/20.

Many individuals are able to read only part of the letters in a given size line, and the author's plan is to give credit for that line minus the number of letters missed, or record the vision as of the line above with credit for the number of letters read in the smaller line. For example, if at a 20-foot distance the individual reads all but two letters of the 20-foot line correctly, the vision is recorded 20/20—2. If he is able to read the 25-foot line and three letters in the 20-foot line, the vision would be considered 20/25+3.

VISUAL REQUIREMENTS FOR VARIOUS BRANCHES OF MILITARY SERVICES[1]

United States Navy and Naval Reserve

Seamen—15/20 each eye without correction, and 20/20 each eye with correction.
First five groups Stillings' color plates.

Naval Reserve—15/20 each eye without correction, and 20/20 each eye with correction.
Recognize one plate in each group of Stillings' color plates.

Commission in Line of Navy—18/20 each eye without correction, and 20/20 each eye with correction.
Complete Stillings' color test.
Edridge-Green lantern test used as a check.

Commission in Staff—(Includes Medical Corps, Pay Corps, Engineers and Special Officers). 12/20 each eye without correction, and 20/20 each eye with correction.
(Until December 7, 1941, were required to pass Stillings' color test. This may be waived now.)

United States Navy Aviation Cadet

Entrance examination—20/20 each eye without correction.

Qualified and experienced pilots—15/20 each eye without correction.
(In addition, the special examination listed as a requirement for the United States Army Air Corps.)

United States Marine Corps—(Same ocular requirements as for Navy.)

United States Coast Guard

Enlisted men—20/30 each eye without correction, and 20/20 each eye with correction.

Officers—20/20 each eye without correction.
American Optical Company's pseudo-isochromatic plates.

[1] As given by the respective recruiting officers under date of March 15, 1942. Applicant is not required to possess glasses.

United States Army

Combatant—20/100 each eye without correction, and 20/40 each eye with correction.

Non-combatant—20/100 to 20/200 each eye without correction, and 20/40 each eye with correction.

(Includes Medical, Quartermaster, Ordnance and Chemical Departments).

United States Army Air Corps Ground Service—(Includes Engineers, Communication Experts, Armorers, Meteorological Experts, and Photographers).

20/100 each eye without correction, and 20/20 in one eye and 20/30 in the other eye with correction.

Distinguish pure red and green colors.

United States Army Air Corps[2]—Pilots, Bombardiers, Navigators.

20/20 each eye without correction.

American Optical Company's pseudo-isochromatic plates or Ishihara pseudo-isochromatic plates.

Special aviation eye examination includes depth perception, muscle balance, accommodation, prism ductions, visual fields, measurement of the angle of convergence, and refraction under cycloplegic.

There must not be any acute or chronic pathological condition of either eye or adnexae which may become aggravated or may interfere with their proper function. Entropion, ectropion, symblepharon, large cicatrices of the eyelids, blepharitis, trachoma, acute conjunctivitis, corneal ulcers, corneal opacities, iritis, iridocyclitis, lenticular opacities, vitreous opacities, chorioretinitis, coloboma of choroid and iris, optic neuritis, papilloedema, and glaucoma are some of the more common disqualifying conditions.

Last year in the Indianapolis area there were 5,374 applicants examined for the United States Navy and Naval Reserves. Lieutenant F. M. Hall,[3] of the United States Naval Reserve, and senior medical officer in the United States Navy Recruiting Office in Indianapolis reports that 2,001, or 37 per cent of this number, were rejected for various physical defects. Of the number rejected, 548, or 27 per cent, were disqualified because of visual defects or ocular pathology. These were divided as follows:

Refractive error	383	69+%
Color perception	154	28+%
Other causes (not differentiated)	11	2 %

Major Glen Ward Lee,[4] M.C., state medical officer of the Selective Service System states: "In Indiana, . . . 11.6 per cent of the total number of selectees rejected have been rejected for defects or diseases of the eyes. The average of the entire nation has been 10.3 per cent of the total rejections, rejected for defects and diseases of the eyes. In regard to number of defects found and tabulated according to systems, diseases and defects of the eyes are found to be third in the incidence table, being preceded by, first, the feet, and second, the teeth."

Major Lee has kindly supplied the author with the following table, which will be of great interest to the physicians and ophthalmologists of Indiana.

INCIDENCE OF DEFECTS FOUND IN 19,923 REGISTRANTS EXAMINED BY SELECTIVE SERVICE LOCAL BOARDS

Disease or Defects	*Rate of Defects Per 1,000 Examined*
EYES	115.7
Blindness, total	0.1
Eye, enucleation of	1.6
Vision, defective or insufficient	39.1
Astigmatism	4.2
Hyperopia	1.3
Myopia	10.0
Errors of refraction, others and unspecified	28.4
Trachoma	0.4
Conjunctivitis	6.6
Pterygium	2.5
Ptosis	0.9
Synechia	0.2
Entropion and extropion	0.2
Strabismus	7.6
Cataract	1.2
Choroiditis	0.2
Retina, detached	0.2
Retinitis	0.4
Iritis	0.5
Keratitis	0.3
Cornea, opacity of	1.5
Cornea, ulcer of	0.2
Exophthalmos	1.0
Nystagmus	1.2
Eye or eyelids, injury to	0.8
Eye, congenital anomalies	0.2
Eye or eyelids, deformity of	0.8
Pupillary abnormalities	1.6
Eye or eyelids, other diseases of	1.5

In the past year border-line cases were referred either by the examining board or by the selectees to an advisory board. One ophthalmologist[5] who has examined 206 such cases reports the following findings:

Total number of appeal cases	206
Classified as IA	83—40%
Myopia and myopic astigmatism	68—33%
Hyperopia and hyperopic astigmatism	11
Mixed astigmatism	1— 6%
Accommodative weakness	1
Amblyopia and anisometropia	19—13%
Strabismus	8
Cataract, congenital and acquired	6
Corneal scar	3
Retinitis and uveitis	5
Cerebral disturbance	1— 7%

The large number of applicants and selectees rejected because of ocular disqualifications has caused considerable comment in the lay press and among the medical profession. From the above

[2] Army Aviation Cadet Scholarship Program—Headquarters, Fifth Corps Area, Fort Hayes, Columbus, Ohio.

[3] Lieutenant F. M. Hall, U. S. Naval Reserve—Personal Communication.

[4] Major Glen Ward Lee, M.C.—Personal Communication.

[5] J. C. Daniel, M.D.—Indianapolis, Indiana.

tables we note that defective vision due either to myopia and myopic astigmatism, hyperopia and hyperopic astigmatism, amblyopia and anisometropia, and strabismus account for a very large proportion of these rejections.

A physician's first purpose is to cure disease and alleviate suffering, but the modern physician is interested in prevention of disease and conservation of vision. Many of these measures will be of no avail with regard to applicants for military services at this time; yet it is our duty to take a longer view of the subject "Conservation of Vision" and consider what may be done to prevent as far as possible disqualification for military service in the future.

The value of the Credé prophylaxis in ophthalmia neonatorum, the prenatal treatment of lues, and the early recognition and proper treatment of congenital lues is shown in the very small percentage of disqualifications because of corneal scars or opacities. Congenital cataract should be operated at an early date to allow the development of the retina, but even if operated this results in aphakia and will prevent the individual from being suitable for military service.

The modern treatment of strabismus, or cross-eyes, has a three-fold aim: equal or approximately equal visual acuity in the two eyes, normal depth perception, and an acceptable cosmetic result. This requires the service of a competent ophthalmologist and the co-operation of well-informed family physicians and parents. Some of these cases can be corrected and be made fit for military service if they have prompt and proper treatment early in life.

Many eyes are irrevocably lost or severely damaged by penetrating injuries of the eyeball. Children should never be allowed to play with sharp pointed scissors, forks, sharpened pencils, darts or other sharp instruments. A large number of eye cases have been admitted to the James Whitcomb Riley Hospital because of penetrating wounds caused by such instruments; some of the eyes were saved, but many were lost.

A child's eyes should be examined and a careful visual acuity test made with the kindergarten or illiterate chart before he enters school. As soon as the child is able to read, the Snellen chart should be used and a study made of the action of the extra-ocular muscles and the fusion faculty. Such eye examinations are made in some schools in the larger cities, but every child should have the benefit of these examinations before entering school, and every year thereafter.

Myopia develops at about the age of seven to twelve and is best diagnosed by annual visual acuity tests. Then the case should be placed under the care of an ophthalmologist, who after careful refraction will prescribe proper glasses and advise the parents concerning the ocular hygiene of myopia. The latest opinion of competent ophthalmologists is that proper glasses, changed as often as indicated, and ocular hygiene are the only methods of controlling the ravages of myopia. The large number of rejections because of myopia indicate clearly the need for careful annual examinations of children's eyes and the referring of cases of refractive errors to ophthalmologists.

Some young men were unable to pass the minimum ocular requirements of the United States Army because of a lack of consideration for conservation of vision in industry. Before becoming employed the applicant should have a careful vision test, examination of the anterior segment of the eye, and an ophthalmoscopic examination as a part of his preliminary physical examination. This should be made by an ophthalmologist, who by reason of his medical training is in position to recommend correction of physical defects as well as visual defects, if indicated. Eyes of industrial workers should be periodically re-examined even though no defects were found at the entrance examination. Many industrial operations can be modified so as to eliminate ocular hazards. Goggles and non-breakable safety glasses should be worn when it is impossible to eliminate these hazards by altering the industrial procedure. Occupational glasses and proper illumination are safety factors that should be considered in certain instances. The eyes of injured workers should be skillfully treated for injuries and inflammation.

There has been considerable discussion with reference to rehabilitation of young men who have been rejected by the Air Corps of the Army or Navy because of a lack of co-ordination of the extra-ocular eye muscles. Orthoptic training has been alternately condemned and praised as an aid in such cases. This is one of the newer phases of ophthalmology and has been placed in an undesirable position through its indiscriminate use by some who have not made a thorough study of the coördination of the extra-ocular muscles and the fusion center. Orthoptic training should be undertaken only after a thorough survey of the ocular problems and should be under the immediate direction of one who is thoroughly cognizant of the many factors involved in such problems. It has been possible to assist many individuals to gain admission to the Air Corps, thus making their services available to our country at this time. This should not be considered a plea for indiscriminate orthoptic training by those who are not qualified to thoroughly investigate and study these cases.

SUMMARY

A review of the ocular requirements of the various departments of the military services has been detailed, as given by officers in charge of the various recruiting stations. In Indiana 11.6 per cent of the number of selectees were rejected because of ocular defects, whereas the average for the entire nation was 10.3 per cent. Various statistical studies indicate that myopia accounts for a

large percentage of these rejections. A plea has been made for Conservation of Vision by giving proper attention to the various phases of ocular hygiene in infancy, childhood, and industrial life.

1017 Hume-Mansur Building,
Indianapolis, Indiana

RECENT ADVANCES IN EYE SURGERY

(A Paper for the General Practitioner)

BERNARD D. RAVDIN, M.D.
EVANSVILLE

If one reviews the literature of the last decade on eye surgery, one is astonished by the many advances made in this field of operative ophthalmology. This holds true for almost all types of ocular surgery, cataract operations, surgery to control glaucoma, corneal transplantation, squint cases, detachments of the retina, refinements of anesthesia, improvements in suture material, etc.

It is not the purpose of the writer to make a critical analysis of the comparative value of one operation or another for a given condition, but rather to acquaint the medical man in general practice with some of the many advances, refinements and improvements developed in eye surgery in recent years.

Anesthesia

In the field of anesthesia we have seen many additions and refinements to the older tried but worthy products. Ether and ethyl chloride, together with nitrous oxide, are still valuable inhalation anesthesias for some eye operations. The type of the operation and the condition of the patient are determining factors as to the choice of anesthesia. Among the newer inhalation anesthesias we have ethylene and cyclopropane. Both are good, but they have their limitations where a cautery or diathermy is to be used. Under such conditions the perfect modern anesthesia is avertin by rectum, for very few patients have postoperative nausea from it. The anesthetist is completely removed from the field of surgery. There are no objectionable disturbances of the cornea or the conjunctiva, such as are frequently seen with local anesthesia. It assures the patient a good airway throughout the operation.

Of the more recent general anesthesias, intravenous use of pentothal sodium seems to be ideal for many operations on the eye, such as enucleation, evisceration, repair of lids or bulbar injuries, and fulguration for detached retina. The postoperative reaction time is brief, and there are no serious complications.

In the field of local anesthetics eye men have been using cocaine since its discovery by Koller[1] in 1884. It is a most ideal local anesthetic, having only minor disadvantages. Of the newer products butyn and pontocaine are used extensively for anesthesia of the cornea and bulbar conjunctiva. They produce adequate anesthesia quickly, with little harm or irritation to the local tissues, and last sufficiently long to do the average eye operation.

Retrobulbar or cone injections of procaine solution have been a boon to ophthalmic operators in intra-ocular operations, operations upon the extra-ocular eye muscles, enucleations and others. The value of the Van Lint[2] and O'Brien[3] methods of producing temporary paralysis of the orbicularis muscle for operations upon the globe, where a forcible contraction of the orbicularis muscle might injure the eye, as in cataract operation, is a most valuable contribution to recent eye surgery.

We must not forget to mention the value of sedatives, especially the new barbituric group of drugs. Administered preoperatively, they eliminate the fear and apprehension of our patients, and, secondly, they have added value of counteracting to some extent the toxic action of the anesthetic agent.

Surgery of Squint Cases

Probably the most outstanding recent contribution to the surgical treatment of squint is the use of very fine absorbable catgut. The use of catgut for buried sutures, together with its use for conjunctival closures, makes it especially advantageous in small children on whom squint operations have to be performed. The reaction following its use is not at all severe. It has a decided superior value to silk buried sutures, which often require secondary general anesthesia for their removal.

Plastic Surgery of the Eyelids and Adnexa

Here, too, the recent advances in surgery are attributed to the use of atraumatic sutures with needles integrally affixed. This eyeless needle suture combination consists of the needle swaged to the end of a single strand of suture material. These sutures are most practical and convenient in surgery in and about the eye.

Corneal Surgery

One of the outstanding contributions to recent eye surgery is the modern aspect of corneal transplantation. The work of Elschnig, Filator, Thomas,

[1] Koller, Carl: Preliminary Report on Local Anesthesia of the Eye, *Archives of Ophthalmology*, (Oct.) 1934.

[2] Van Lint: Paralysie Palpebrale Temporairl Provoquii dous l'operation de la cataracte, *Ann. d'ocul.* Vol. **151**, 1914.

[3] O'Brien, C. S.: Akinesis during Cataract Extraction, *Archives of Ophthalmology*. Vol. **1**, 1929.

and Castroviego[4] has shown that the transplantation of clear corneal tissue from an enucleated eye, and substituted for opaque cornea, can be successfully accomplished when a suitable technic is followed. This operation presents some difficulties: First, the difficulty of obtaining healthy, clear corneas, and, second, the complicated technic of removing the dense corneal scar and replacing it with a healthy corneal transplant of exactly the same size as the scarred corneal tissue removed, and then suitably suturing it in place so that the transplant will hold and grow. This operation is becoming increasingly popular and more and more trained ophthalmologists are performing it. To the individual who has extensive scarring of both corneas, from whatever cause, this operation when successfully performed, opens up a new world to these unfortunates.

Cataract Operations

If one reviews the history of operations for cataract down to the present day, one must admit that in no field of ophthalmic surgery has there been such extensive advancement.

The first authentic record of an operation for cataract can be traced to a treatise on surgery by the great Indian surgeon, Susruta, about 1000 B.C. It consisted of couching or pushing the cataractous lens back into the vitreous chamber. It was performed in the sitting position, with no anesthesia whatsoever. Modern cataract surgery started with the work of Daviel in 1745 A.D., who devised the capsulotomy method.

Down through the years there have been many modifications of cataract extraction. In the early days antisepsis and anesthesia were inadequate, with resulting high loss of eyes. Jung Shillung, in his book in 1791, recorded failures in 14 per cent of 2,000 cataract extractions, and Daviel reported a 12 per cent loss. Failures now have been reduced to less than 1 per cent. Ophthalmologists have reason to be proud of the fact that they were pioneers in asepsis and local anesthesias. At a time when 96 per cent of the patients operated on by a general surgeon died of sepsis, ophthalmologic surgeons had only 5 per cent of infections.

The high state of proficiency of modern cataract surgery is due, I believe, to two fundamental factors: First, a most careful and complete history and preoperative physical study of every patient, and, second, the improved technic of the operation itself.

Clark[5] has wisely said, "Preoperative attention reduces surgical and postsurgical complication." All foci of infection should be cleared up before surgery, especially is this true in edentulous mouths where remains, snags and infected roots are shown by x-ray. Diabetic and arteriosclerotic patients should be carefully controlled. We must remember that the majority of these cataract patients are people past middle life. We cannot change their habits and mode of eating or living, but we can see that they are in good physical condition and are good operative risks before we attempt surgery.

Let us review some of the more recent advances of modern surgical cataract technique: (1) Complete local anesthesia of the cornea by drop instillations, at regular intervals, of 4 to 5 per cent cocaine solution or 1 per cent pontocaine solution. It is most important and essential that the patient shall not have any pain whatsoever when the eyeball is grasped with a fixation forcep and, secondly, when the cataract knife enters the eyeball to make the section. Inadequate anesthesia may spell disaster. Complete anesthesia of the cornea has been stressed by all authorities in recent years. If the patient has pain, he inadvertently squeezes his eyelids. (2) To obviate this, it is important that complete akinesia of the orbicularis muscle be obtained by the Van Lint[2] or O'Brien[3] technic. To obtain paralysis of the orbicularis muscle by the Van Lint[2] method, one injects procaine just beneath the skin of the upper and lower eyelids, close to the ciliary margin. O'Brien's[3] method consists of injecting the anesthetic solution into the facial nerve or the immediate region of the nerve, in front of the ear, at the point where the nerve emerges from the parotid gland. (3) To the above procedure, some surgeons add the injection of anesthetic solution deep into the orbit, so-called "retrobulbar injection." This produces paralysis of the ciliary ganglion. This procedure is carried out as follows: a long slender needle is introduced into the subconjunctival space in the lower outer quadrant (or directly through the skin in the same region) and passed backward nearly to the apex of the orbit. By this method deeper anesthesia of the eyeball is secured. There is as a general rule a definite reduction in intraocular tension following the injection. This is the strongest argument for its use in intracapsular extraction. This procedure is not universally employed. However, coupled with thorough surface anesthesia, subconjunctival anesthesia and akinesia of the eyelids, deep orbital injections produce a most complete anesthesia of the eyeball. The above three procedures of anesthesia prevent the patient from squeezing upon the speculum and thereby causing gaping of the wound, loss of vitreous or premature expulsion of the cataractous lens. (4) Use of sutures to close the cataract incision. Williams, in 1869, advocated suturing of the cataract incision. He realized the marked value of approximating the lips of the wound, thereby securing almost immediate union. Only in the past twenty years has suturing of the cataract incision received considerable attention. The conjunctival suture was the earliest form of suture to be used in con-

[4] Castroviego, R.: Present Status of Keratoplasty, *Archives of Ophthalmology*, (July) 1939.

[5] Clark, C. P.: Preparation of the Senile Patient for Removal of Cataract. Graduate Lecture American Academy of Ophthalmology and Otolaryngology, 1941.

nection with the cataract extraction and probably is more extensively used today than most other forms of suture. It is easily introduced and serves a useful purpose in closing the cataract incision. Other sutures introduced were corneal suture, scleroconjunctival suture, and the sclerocorneal suture. Here the cornea and sclera are approximated by one or two sutures. Some form of corneoscleroconjunctival suture is most important and is a decided help in all cataract cases, for it provides the following advantages: (a) A tight approximation of the lips of the wound, which insures against sudden opening of the anterior chamber, and the earlier healing of the incision protects against infection. (b) Reduces the danger of prolapse of the iris, loss of vitreous, and keeps hemorrhage to a minimum. (c). It definitely is the means of reducing postoperative astigmatism to a lesser amount, by better approximation of the edges of the wound. (d) It permits a much greater freedom of movement by the patient during healing. This is so very important in our elderly patients. These people cannot and should not be kept long in any one position for fear of pulmonary complications. With several well-placed corneoscleral sutures, no restrictions of movement are vitally necessary. If need be, these patients may be allowed to, and frequently do, leave their beds within twenty-four hours after the operation. (5) Regarding the intracapsular cataract extraction, Ellett[6] says, "This is the cataract operation *deluxe*." In this operation the cataractous lens is removed from the eye with its capsule intact. This operation was popularized by Colonel Henry Smith of the British Indian Medical Service. Many modifications of his original technic have been devised. It may be said that this operation is always desirable, but not always possible or advisable. It certainly is the operation of choice in cases of immature cataract. A patient need no longer wait until his cataract has become completely ripe to have it removed. The intracapsular operation is worthy of attempt in all uncomplicated cataract cases. The exponents of intracapsular extraction claim that it gives better visual results and affords freedom from iritis and the possibility of secondary membranes. The recovery in the majority of these cases, when no complications arise, are truly remarkable. When successful, the patient can be assured of no further secondary operations.

Advances in Glaucoma Surgery in Recent Years

One outstanding surgical advance in recent years has become very apparent in the management of glaucoma, namely, the decided trend towards an earlier operation when it is indicated.

During the past ten to twelve years there has been a decided increase in the incidence of glaucoma. Starting with the years of our financial depression, eye men, if they had looked for glaucoma, should have found many more cases sitting in their waiting rooms than ever before. Many of these patients with unstable nervous symptoms thought that all they needed was a new pair of glasses to correct their eye complaints. With this country now entering into the greatest struggle we have experienced in our existence, the number of cases of glaucoma will greatly increase. What are we to do about it? First, we as doctors, general practitioners and eye men, must become *glaucoma conscious*. These cases must be recognized early if useful vision is to be retained. It becomes the business of the general medical man to see that his patients are properly directed to the eye physician who is best fitted and trained to recognize and treat glaucoma. He knows how to take fields of vision, to test the intraocular tension with a tonometer, to study and interpret the diurnal tension curves and, when the need be, employ certain provocative tests on border-line cases. If these cases can be diagnosed early, the percentage of satisfactory results, irrespective of the type of treatment, will be proportionately much higher than if the diagnosis is made late in the disease. Reese[7] has shown that in a series of one hundred forty-one eyes operated upon, 90 per cent of the early cases, fifty-one eyes showed arrested disease after an average follow-up period of approximately five years from the time of the operation. Of the late cases, ninety eyes, only 28 per cent, showed arrested disease after an average follow-up period of over five years. These figures paint a definite picture. To save eyesight in glaucoma, we must diagnose the cases early, and where surgery is indicated it must be performed early to obtain the most satisfactory results.

Advances in Retinal Detachment

According to Duke Elder, the term *retinal detachment* is a misnomer. There is no true retinal detachment, but rather a separation of two layers of the retina, the outer epithelium layer from the inner (neural) layer. This separation produces a space frequently referred to as the subretinal space, filled with fluid, but truly it is an interretinal space. It may be stated authoritatively that the presence of detachment of the retina implies that there is either a hole or tear in that retina. Successful operation on detachment of the retina depends now, more than ever before, on the diligent search for retinal tears, their localization and the prompt execution of operative measures. To procrastinate in these cases means a high mortality of lost eyes.

In 1930, Weve described and had successfully practiced his method of diathermy. This consists of cauterization of the scleral surface over the region of the hole in the retina to excite an exudative choroidal reaction, with subsequent evacuation

[6] Ellett, E. C.: Use of the Suture in Extraction of the Cataract, *Archives of Ophthalmology*, 1937.

[7] Reese, A. B.: Glaucoma Surgery during the Past Ten Years, *Surg., Gyn. & Obst.*, (Feb.) 1941.

of the subretinal fluid. This work was emphasized by Larssen in 1932. Later in 1932 Weve evolved a technic of diathermic puncture wherein the hole in the retina was sealed off by micropuncture by a diathermy needle, the operation being performed under visual control. Eventually he combined the two technics, employing both surface and puncture applications by unipolar electrodes. Safar, in 1932, advocated simultaneous multiple punctures, while still other modifications were introduced by Walker (1934-1935), and many others.

It may be said that with the new operative procedures introduced in recent years, the outlook in cases of detachment of the retina has changed from one of almost complete despair to one of hopefulness; still the prognosis is always grave.

When seen early enough, approximately 50 per cent of all cases of detachment of the retina can be cured. The healthier the eye, the better are the chances for a good result.

This condition is one of the major catastrophes of ophthalmology.

712 Hulman Building.

INFLAMMATORY SWELLING OF THE EYELIDS

MILO C. WELLS, M.D.
ANDERSON

The search for the cause of pronounced congestion and swelling of the eyelids leads to the consideration of a number of confusing conditions. The etiology may be general or local. If local, it may be found in the globe itself, in the orbit or surrounding structures, or in the appendages of the eye. Among the causes in the latter group are acute dacryocystitis, erysipelas, herpes zoster ophthalmicus, lid abscess and severe acute meibomian gland infection.

DACRYOCYSTITIS

Acute dacryocystitis is generally superimposed upon a chronic inflammation of the lacrimal sac; rarely it arises from caries of the lacrimal bone. The picture is characterized by a redness and swelling of the tissues, originating in the vicinity of the sac and spreading to include the lids and conjunctiva. The condition may be so extensive that the entire side of the face is involved, thereby grossly suggesting erysipelas. Gentle pressure over the local swelling may be used to express pus from the punctum and confirm the diagnosis. Fever, violent pain and insomnia accompany the infection. After a time the inflammation may subside, with drainage into the nose or conjunctival sac. More often, however, the skin at the apex becomes fluctuant and finally perforates. The point of drainage does not correspond to the position of the sac, but is usually situated below and temporally, for the pus follows the inferior margin of the orbit. With the discharge of pus, the pain is relieved and the swelling leaves rapidly. The drainage, at first purulent, later becomes mucoid and finally clear like water. As long as the fistula remains open, the patient is safe from any new attack of inflammation.

If an acute dacryocystitis is seen in its early stages, every effort is made to prevent the development of an abscess. Fluid is expressed from the sac and the sac is gently irrigated with antiseptic solution. However, if the inflammation has passed the initial stage, the swelling and painfulness of the parts prevent any manipulation. Moist, hot compresses may be used to hasten the formation of an abscess. If fluctuation develops, the abscess should be evacuated by incision.

Because of its role as forerunner of acute dacryocystitis, and because it is a dangerous complication in the presence of a corneal abrasion or when intraocular surgery is contemplated, chronic inflammation of the lacrimal sac should be considered here. The ever-present pathogenic organisms —usually pneumococci, streptococci or staphylococci—cause the development of ulcers when the epithelium of the cornea is broken. Intra-ocular surgery should *never* be performed when a chronic dacryocystitis is present, for the organisms would certainly be introduced into the eyeball with subsequent disastrous results.

Chronic dacryocystitis is caused by an obstruction of the lacrimal duct, usually congenital in origin or associated with nasal pathology. The tears with their bacterial content are thus retained in the sac where they decompose and irritate the mucous membrane. The contents of the sac are increased by a mucopurulent secretion from the inflamed mucosa, with subsequent dilatation and thickening of the walls.

In this condition epiphora, an abnormal overflow of tears on the cheek, is the most noticeable symptom. Palpation over the region of the sac usually reveals a swelling which extends slightly above the palpebral ligament. (Swellings which lie mainly above the ligament are to be regarded as connected with the frontal sinus and not with the sac.) When pressure is made over the tumor, the clear, flaky-white, or mucoid contents of the sac are discharged externally through the puncta. When the fluid is viscid and the mucous membrane lining atonic, the visibly distended condition of the sac is known as a mucocele. Attempted irriga-

tion of the passage results only in a backflow of fluid into the conjunctival sac. The epiphora, which is exaggerated by cold weather, smoke and wind, may, if allowed to continue over a long period, lead to a chronic inflammation of the conjunctiva and of the lid margins. In extreme conditions an eczematous condition, which contracts the skin and leads to an ectropion, may be produced by the constant moistening of the lower lid with tears. A vicious cycle is thus set up, for the lacrimation is increased.

Treatment in the simplest cases consists of relief of nasal disease, if present, and of frequent emptying of the sac by pressure over this area, which can be done at home. However, gradual dilatation with sounds is usually necessary. When dilatation fails to obtain the desired results, an extirpation of the sac or a dacryocystorhinostomy, an operation in which a new opening is made into the nose, should be performed. When intra-ocular surgery is contemplated or when a corneal ulcer is present, the sac *must* be removed or a dacryocystorhinostomy *must* be performed.

ERYSIPELAS

Erysipelas, while it is usually a part of a generalized process involving the face and the scalp, may affect the skin and subcutaneous tissues of the eyelids primarily, thereby presenting a picture similar to acute dacryocystitis. This condition, however, usually involves both eyelids. The swelling and redness, unlike that of dacryocystitis, present no area of circumscribed infiltration. The involved skin is definitely resistant and has distinct margins. In severe cases small abscesses may form in addition to the vesiculations of the skin, and if the process is especially intense gangrenous areas may develop. Often the erysipelatous process penetrates into the deeper parts in the form of a phlegmon, and abscesses are produced in the lids or even in the orbit itself. In this case implication of the optic nerve may occur with transmission of the suppuration to the cranial cavity and development of meningitis. Erysipelas is always a serious infeetion, but is particularly so in and around the eyelids because of the danger of extension.

HERPES ZOSTER OPHTHALMICUS

Herpes zoster ophthalmicus, with its typical picture of swollen red lids associated with vesicle formation over the terminal distribution of the first and second divisions of the fifth cranial nerve, was recognized as a clinical entity by Jonathan Hutchinson (1886). Following a lesion of the gasserian ganglion, the area of distribution of the first division of the fifth nerve, in whole or in part, is affected by vasomotor disturbances, which are particularly characterized by discrete areas of epithelial vesiculation and subepithelial infiltration. Etiologically two types occur: an epidemic zoster caused by a specific virus and producing a lesion in every way comparable with herpes zoster on other parts of the body, and a symptomatic zoster due to an involvement of the ganglion, secondarily, in some infective, neoplastic, or traumatic disturbance.

Epidemic herpes zoster is part of a definite infection which produces constitutional disturbances and fever and runs a more or less similar course in all cases from its onset to its subsidence. Although it does occur sporadically, it usually is seen in mild epidemic form, particularly in the spring, the epidemics being frequently associated with chickenpox. However, the fact that the occurrence of many diseases in one family is unknown indicates that its infectivity is small. It conveys an immunity, comparative if not absolute. It attacks adults and the aged almost entirely, the average age in one series of recorded cases (Foster Moore) being forty-one to fifty-five, although it may occur as early as four years.

Preliminary general febrile symptoms may or may not precede severe neuralgic pain and tenderness over some or all of the terminations of the fifth nerve, which at the beginning may to some extent be masked by general discomfort, nausea and vomiting. Sometimes simultaneously with the pain, but usually three or four days after its onset, a blushing of the skin over some part, or the whole of the area of the distribution of the nerve, is followed by a marked edema and the appearance of vesicles. The vesicles are first filled with clear fluid which rapidly becomes turbid and yellow. In a short time they burst, forming crusts which on separating leave deep permanent pitted scars, which show that the dermis has been affected by the necrotic process. The whole cycle occupies some three to six weeks, and throughout this time the most distressing symptom is usually the severe neuralgic pain. As the acute symptoms subside the affected area is usually left with considerably diminished sensitivity, which when associated with continuing neuralgia produces the distressing symptoms of anesthesia dolorosa.

The distribution of the lesion varies. The frontal branch is always involved. When intra-ocular complications occur, as they do in approximately 60 per cent of the cases, the nasociliary branch on the nose is usually affected. Hutchinson's rule, that eye-trouble is frequent if the side of the tip of the nose is involved, is essentially true. The entire first division of the fifth nerve may be involved, but it is very rare to find an affection of the second (infra-orbital) division. In severe cases lesions may be seen an inch or two across the midline on the forehead, owing to the overlapping of nerve fibers, but simultaneous bilateral involvement is uncommon.

Symptomatic herpes zoster, while resembling epidemic zoster in its clinical manifestations, is due to a completely different cause, and has quite a different history. Here the eruption is not the result of the activity of a virus, but is caused by the secondary involvement of the sensory nerve, or posterior root ganglion, in the course of another

lesion—inflammatory, traumatic, or neoplastic—as for example, a luetic or tuberculous meningitis, tabes, a basal fracture, or a pontine tumor. It is thus in essence a neuropathic keratitis. It also may be caused by drugs, particularly arsenic taken therapeutically, or carbon monoxide poisoning. In the symptomatic type the neuralgic pains may precede the herpetic eruption by long periods. In such cases it must be remembered that some of the lesions which develop may be due to the primary central lesion and not to the involvement of the gasserian ganglion. Again it is to be remembered that the primary cause may be latent at the time of the herpetic eruption, and the secondary nature of the case may only be diagnosed some time after it has subsided.

In every case of herpes in the actively eruptive state there is a diffuse corneal edema with some impairment of sensation. The tension of the eye is also said to be lowered. Examination is frequently difficult due to the extreme tenderness and edema of the lids. Hyperemia and edema may be slight, but if incidental infection is present, a conjunctivitis of considerable severity may result. Rarely true conjunctival herpetic lesions are seen under the upper lid. Apart from this, definite complications arise in about 50 per cent of the cases, appearing at any time during the eruptive stage or some weeks after the rash has subsided. These complications are keratitis, scleritis, iridocyclitis, ocular palsies, and optic neuritis.

SUMMARY

Three confusing conditions, namely, acute dacryocystitis, erysipelas and herpes zoster ophthalmicus have been discussed. Pronounced congestion and swelling of the eyelids is characteristic of all three. Differential diagnosis may be made by the accompanying symptoms.

ABSTRACT

ELECTRICAL ACTIVITY OF BRAIN USED AS TEST OF LOSS OF VISION

Electroencephalography, a method of recording the electrical activity of the brain, roughly analogous to the use of electrocardiography in studying the activity of the heart, is a reliable objective test of true as opposed to malingering or hysterical blindness, Frederick Lemere, M.D., Seattle, declares in *The Journal of the American Association* for March 14.

"As there has never been a reliable objective test for blindness," Dr. Lemere says, "a physician suspecting hysterical blindness or malingering may be unable to confirm his diagnosis. Conversely, the physician may feel confident that a patient is not a malingerer and yet be unable to prove genuine blindness. It was just such a situation that led to this study. The value of a reliable objective test for blindness, especially in compensation cases and in military medicine, is obvious. . . ."

He explains that the most prominent brain waves are the Alpha waves with an approximate rhythm of 8 per second. These waves appear on the electroencephalograph only with the eyes shut, as they arise almost entirely from the visual cortex and are broken up when the eyes are open and the subject looks at an object.

"A uniform visual field of light or dark, or even a field containing blurred indefinite outlines," the doctor continues, "usually does not interrupt the alpha rhythm. It requires a definite visual pattern to break the alpha rhythm. If a blind or partially blind subject attempts to look at an object such as a pencil and the alpha waves persist, one can conclude that there is not enough vision left to distinguish objects or to be of practical value to the patient. On the other hand, if a supposedly blind person is asked to open his eyes and look around and the alpha waves stop, one can conclude that there is enough vision left to distinguish objects at least, and one can with reasonable safety make a diagnosis of malingering or hysterical blindness. . . ."

Dr. Lemere cites 3 cases in which the electroencephalograph was used. In one an electrician had been working on a switch when a screw driver slipped and caused a short circuit on a 440 volt line, resulting in two bright flashes of light. The patient was blinded by the flashes and has been able only to distinguish large objects indistinctly since the accident. He has been unable to read or work and has claimed compensation. No disease changes could be found on examination, the eyes appeared normal and the pupils reacted to light. Malingering or hysteria seemed the logical explanation, but an electroencephalograph showed alpha waves with the eyes open as well as shut and while attempting to look at a pencil. On the basis of this finding compensation for blindness was recommended.

In another case a veteran had been receiving $150 a month for claimed complete blindness since being gassed in the last war. Repeated examinations had failed to reveal any demonstrable disease condition and the pupils reacted to light. Although malingering was suspected, it could never be proved. Electroencephalography showed cessation of alpha waves when he attempted to look at a pencil and a diagnosis of hysterical blindness or malingering was made. Observation by investigators showed that the patient was gardening and fishing with a facility not usual in one who is completely blind.

In the third case a woman with epilepsy and a superimposed neurosis suffered from complete blindness shortly after being placed on a certain type of treatment and following an argument with her husband. Examination showed absence of disease changes, and a diagnosis of hysterical blindness was made. Electroencephalography showed cessation of the alpha rhythm when her eyes were opened, although she claimed she could not see a thing. This confirmed the diagnosis of hysterical blindness, which was again confirmed by the patient immediately recovering her vision under the suggestion that the recording of the brain waves was a treatment.

Dr. Lemere warns, however, that "unfortunately a few people do not have an alpha rhythm with the eyes either open or shut. In this case the test cannot be made. . . ."

AIDS TO THE GENERAL PRACTITIONER IN THE CONSERVATION OF VISION

CHARLES L. MAHONEY, M.D.
TERRE HAUTE

The previous centuries of study of eye diseases have enabled us to prevent or modify, by a little knowledge and care, much discomfort and inefficiency of otherwise healthy eyes.

In the stress of this war-time industrial orgy, we may forget an important reason for our fitness—good eyesight. Deficient diet, chiefly due to poor transportation to the point where thousands of workers will snatch a few minutes from work for their usual diet of coffee, ham sandwich, and a small, round apple pie, will entail a lowered resistance. Insufficient rest, overwork and hurry will cause neglect of symptoms which will result in injury to part of the complicated function of the eye.

The larger percentage of the burden in preventing or correcting the disturbances will fall on the general practitioner. He will have opportunities to examine the migrant worker who may still have an active trachoma; and the crowded working and living conditions enable this disease to do so well for itself. He will give the employee an examination to make sure he has no communicable disease such as tuberculosis, conjunctivitis or trachoma, and see that he has no special predisposition to accident. War-time visual conservation cannot be divorced from that of peacetime, but is an additive factor.

The care of the eyes begins before the embryo, for we must consider retinitis pigmentosa and albinism—more than 25 per cent of which are due to consanguinity. Other defects are congenital cataract, color blindness and inherited weakness of the sclera, resulting in myopia. If the potential parent has serious eye disease, we should determine its transmisibility. Syphilis, active in a prospective mother, if not well treated results in a high percentage of diseased eyes.

Care at Birth:

There are some diseases which are contracted during passage through the mother's birth canal, chief of which are gonorrhea, inclusion cell conjunctivitis and conjunctivitis due to pneumococcus, staphylococcus and others. Almost all of these can be prevented provided 1 per cent silver nitrate is instilled into the conjunctival cul-de-sac at the time of birth. Incorrect application of forceps by the hurried obstetrician has resulted in a number of defects to the eyes.

Care in Childhood:

The exanthemata, such as measles, often bring a toxic conjunctivitis. A lowered resistance is often accompanied by a conjunctivitis or phlyctenular keratitis. Bandaging such eyes, or any eye with a discharge, is usually contraindicated, for closure prevents proper drainage by way of the lacrimal ducts. Cleanliness, by frequent irrigations, and adequate diet, with especial attention to vitamins, will usually alleviate this condition. If the cornea becomes involved, an oculist should be called.

The school-age brings symptoms of refractive errors which, if not corrected, may cause a deviation of one eye from the direction of vision and a lowering of vision in the deviating eye. This condition is relatively easy to correct if treated early. However, if the child is given a chance to "outgrow it," the condition may later prove irremediable. A severe myopia may develop at this age if the softened sclera is allowed to be stretched by strain. This may become progressive, resulting in the necessity for thick lenses or even a central choroiditis and retinal detachment.

When the child grows older, he should be watched for squint, headache, and inflamed eyelids, which result in lack of interest in reading and inability to keep up with his classes. Such symptoms call for a complete ocular examination.

Care During Adult Life:

In early adult life, when the individual is still in training, the eyes may be used more than at any other time, and functional disorders are out of proportion to those of organic origin. The risk of industrial accident or disease begins to enter into the picture, as do focal infections, syphilis and tuberculosis, which often cause ocular inflammations. Since this is the period of the most adventurous social contacts, cases of conjunctivitis due to contact, such as trachoma, etc. (migrant workers), may be more prone to occur.

This may be a good place to bring in some of the potentialities in the new industries with their coincident crowding, unhygienic surroundings, dietary insufficiencies, etc., such as injuries, infections and metabolic disorders. Injuries may be prevented by protective goggles (improved if the refractive error is contained in the lens), sufficient lighting, and protective measures on the machines.

Foreign bodies in the cornea constitute about 50 per cent of ocular injuries in industry. The varieties of foreign bodies found are multiple, such as glass, emery powder, coal or particles of iron. The removal calls for a good light, anesthesia, such as 2 per cent cocaine, or pantocaine and a good spud. The oxidized area about a steel foreign body must also be removed. After the anesthesia

has been instilled two or three times at two-minute intervals, and good lighting is secured, the patient is told to center his eye on some object. While using the spud in the same manner as a pencil, the point is sunk into the cornea at the edge of the foreign body and slipped under the fragment, lifting the whole particle out, usually including the ring of rust. A patch is applied, and if the foreign body was thought not to be sterile it is advisable to instill optochin 1 per cent.

Contusions vary widely as to seriousness, from a hemorrhage in the eyelids to a rupture of the eyeball. These cases should all be sent to an ophthalmologist for inspection, and treatment if necessary.

If a penetrating wound of the globe is suspected, a piece of the material found in the penetrating foreign body should be sent to the oculist along with the patient, to aid in the diagnosis and mode of extraction. For example, supposing glass were the offending substance, all glass is not uniformly radiopaque, and it would be helpful if small particles were placed on the x-ray plate remote from the eye.

A diagnosis of ocular perforation is made from the following findings:

1. Visible laceration which gapes on pressure.
2. Prolapse of pigmented uveal tissue.
3. Extrusion of some vitreous, which resembles egg albumen.
4. A soft eye with a shallow anterior chamber.

The prognosis in perforations is often governed by the length of time it takes to remove the intraocular foreign body, if present, and prevent the onset of infection. My opinion is that it would be well if tetanus antisera were given immediately by the general practitioner, who is usually the first to see the patient. This will act as a foreign protein and will aid in preventing infection before the patient reaches the oculist.

Burns of the eye are also encountered and are relatively more injurious when the cornea is involved. If a considerable portion of the skin has been destroyed, it is necessary that the edges of the lids be freshened and sewn together to prevent retraction. Burns of the conjunctiva and cornea may result from hot water or steam, molten metal, corrosive gases, such as mustard gas or chlorine, acids or alkalies. The conjunctival burn stands out as a gray patch surrounded by inflammation. The corneal burn appears as a light gray opacity, and if it seems at all like porcelain, dry and insensitive, it is necrotic. Caustics, especially alkalies, cause greater destruction than is apparent because of the continued migration of the alkali into deeper tissues.

The most important step in treating the case is immediately to irrigate copiously with water, saline, boric acid solution or any bland fluid, and to remove solid portions by forceps or a cotton pledget. We may then think of irrigating the alkaline burn with a 1 per cent solution of acetic acid or a weak vinegar solution, and the acid burn by a mild alkaline solution, such as a 2 per cent solution of sodium bicarbonate. Corrosion with lime or mortar gives a very slow healing wound which has little tendency to clear up. This is due to the deposition of calcium carbonate in the tissues. A 10 per cent solution of neutral ammonium tartrate used as an eye bath several times a day will slowly dissolve this incrustation.

Adhesions between the conjunctival surfaces may be prevented by pulling the lid away from the eyeball. Failure to do this may result in the necessity of plastic operation later.

Discussion of infections of the eyes may well start on an anatomical basis, namely, with the lids. They are subjected externally to the usual epidermal affections, which will not be given special notice here. The margins, however, may develop a simple hyperemia which may be regarded as an initial stage of blepharitis and considered from a dermatological standpoint. Seborrhea sicca, or squamosa, is a condition in which scales adhere to the ciliary margin. Seborrhea ulcerosa is present if on removing the scales an ulcer is seen with its underlying suppurative folliculitis. The patients complain of sensitiveness to light, heat and dust, and of ocular fatigue. The cause may be general, such as a low metabolic rate, anemia, or tuberculosis. Local causes are usually chronic catarrhal conjunctivitis, phlyctenular conjunctivitis, or trachoma, and last but not least, errors in refraction and muscular anomalies.

General treatment is indicated in order to keep the health of the individual at a high standard, and local treatment is applied by removing the scales and the cilia from infected hair follicles and soaking in warm boric acid solution. Follow this with a hydrous ointment containing boric acid or white precipitate, or a more irritating resorcin or yellow precipitate in a 1 or 2 per cent strength. The patient is instructed to rub this on the closed lid borders with his fingers before going to bed.

The sty is a suppuration of either a sebaceous gland at the base of a cilia or the suppuration of a tarsal gland. The treatment consists of the application of hot compresses and nicking the yellow head when it appears. The best prophylaxis is to correct refractive and muscular disorders and any general constitutional disorders.

A chalazion is an affection of a tarsal gland which leads to formation of granulation tissue. If it is large, it is better to remove it; small ones are left alone.

Acute conjunctivitis catarrhalis affects chiefly the retrotarsal folds. The conjunctiva is red but smooth as differentiated from the hypertrophied infiltrates which occur in other conditions. The cornea may be invaded in more severe cases. The symptoms of burning, itching and photophobia become augmented by severe pain if the cornea becomes involved or if complicated by iritis. This condition has a considerable contagious element,

and the patient should be warned regarding its transmission by means of towels, sneezing, coughing, etc.

Its etiology is a variety of organisms, some of which are identified easily by placing a drop of the excess mucoid secretion from the conjunctiva and making a Gram stain. The Koch-Weeks bacillus, the usual cause of ordinary "pink-eye" and the Morax-Axenfeld bacillus are small Gram negative diplobacilli. The diplococci, pneumococci, staphylococci and streptococci are Gram positive. The micrococcus catarrhalis is Gram negative and resembles the gonococcus.

The treatment may cause a faster improvement if the streptococci and micrococci catarrhalis are treated with a 5 per cent sulfanilamide ointment, instilled into the eyes frequently; the pneumococci and staphylococci with an ointment of 5 per cent sulfathiazole and the Gram negative bacilli by a solution or ointment of one-half per cent zinc sulfate. Painting the everted conjunctiva daily with 1 per cent silver nitrate, followed by a flush of saline solution, is still a sovereign remedy.

Gonorrheal ophthalmitis is primarily a disease of the conjunctiva and corneal involvement—the complication which blinds. The symptoms begin one to three days after inoculation and are usually severe. The lids are swollen, sometimes to the extent that great difficulty is experienced in opening them, and care should be exercised so as not to traumatize the cornea. Secretion is excessive, being sanious with globules of pus, and a drop of this secretion stained by the Gram method shows the red diplococci, usually in heaps and mostly intracellular. The conjunctiva is granular and swollen up to and surrounding the cornea, which seems to be depressed by the surrounding conjunctiva. The preauricular lymph node is swollen and tender. If the cornea becomes involved, it loses its luster and gray infiltrates, later becoming yellow, and breaks down into ulcers.

The prognosis is determined chiefly by the condition of the cornea, for the conjunctival disease clears up and causes no complications. Prophylaxis can prevent this condition if the Credé method is used on all eyes where there is a possible contamination. It is the physician's duty to point out the possibilities of ocular contamination to individuals with a venereal discharge. If only one eye is infected, the non-infected eye may be closed off by a transparent shield, such as a watch crystal taped on tightly.

The treatment consists of copious irrigations to keep the cornea from bathing in a pool of pus, local applications of mild antiseptics such as argyrol, sulfanilamide, sufficient to keep the blood level between six and ten milligrams per cent, plus artificial fever by typhoid vaccine, which has of late years almost totally controlled corneal complications.

Let us consider the disease which destroys more eyes than industrial accidents, tuberculosis and syphilis combined. Glaucoma is a term applied to a variety of conditions with pathologically increased intra-ocular pressure as a common physical sign. Glaucoma may be divided into three types—primary, secondary and infantile. The causes of glaucoma are varied. While the mechanism of the rise in intra-ocular tension is explained in some cases by pathologic changes following injury or inflammation of the eye, the primary type, which comprises about 85 per cent of the total, is probably brought about by a variety of conditions, such as anatomic predisposition, swelling of the lenses, and disturbances of the normal regulatory mechanism of the eyeball. Four principal theories are accepted among clinicians as explaining the mechanics of intra-ocular hypertension: (1) decrease in elasticity of the sclera; (2) increase in production of aqueous humor; (3) obstruction to the outflow of intra-ocular fluid, and (4) volumetric increase of intra-ocular fluid.

Intra-ocular hypertension is the damaging feature in all instances of glaucoma. Although it is generally believed that hypertension is only a part of the whole syndrome of glaucoma, the fact remains that it is the only feature that is constantly present and subject to influence by any therapeutic measures. There is no physiologic change in the body that definitely influences intra-ocular tension. It is independent of arterial pressure, and is not influenced by metabolic changes or nervous states. It is thought to be influenced by emotional episodes, and there is a widely held belief that worry and grief bring on exacerbations of a latent glaucoma, but the disease certainly is not instigated by psychic depressions.

Hydrophthalmos, or infantile glaucoma, is the type in which Schlemm's canal, located in the sclera near the peripheral edge of the iris, is absent, or the spillways to it are plugged by embryonic remnants.

Primary glaucoma is the type in which an increase of pressure within the eyeball occurs without our being able to discover any reason for it in an antecedent disease of the eye. Both the primary and secondary types may become congestive, in which case the pressure rises suddenly to a considerable height and congestive symptoms are absent as the eyeball accommodates itself to the pressure, and the signs of inflammation are absent.

The early stages of each are characterized by attacks of obscuration of vision or an illusion of a cloud or veil concealing objects from the patient. There may be a mild frontal or temporal headache. If the physician examines the eye during the attack, he finds the cornea a little dull and diffusely clouded, like glass that has been breathed upon. The anterior chamber may be shallow because of advancement of the iris. The pupil reacts sluggishly, and the tension of the eye is distinctly increased, and there may be slight pericorneal injection. These early attacks last for several

hours, but as time goes on they last longer and their interval decreases.

During this early stage the patient may ask for stronger reading glasses as the accommodative power rapidly decreases. This is perhaps fortunate, for each change in glasses provides an opportunity for a careful examination.

The attacks become more violent and pain radiates from the eye along the first and second branches of the trigeminal nerve, sometimes accompanied by nausea and vomiting, and there may be slight fever and leukocytosis. Such attacks have been diagnosed incorrectly as bilious attacks. The visual acuity and field of vision fall away rapidly.

Objectively, the conjunctiva shows the dusky-red of a venous engorgement. The cornea is clouded and almost insensitive to touch. The pupil is dilated, does not react, and the chamber is shallow. Tension is markedly elevated. After some time the attack subsides, but the vision is never as good as it was previous to the attack. This continues in circling phases until the eye is blind.

In the non-congestive form the tension increases slowly without pain and diagnosis may of necessity be based on poor vision, changes seen in the fundus and the visual fields. Examination may show (1) a shallow anterior chamber; (2) gradual rigidity and dilatation of the pupil; (3) increased intra-ocular tension with abnormal early morning rise; (4) disturbance in dark adaptation; and (5) changes in refraction.

When visual symptoms cannot be elicited, an estimate of intra-ocular tension can be made by digital palpation of the patient's eyes. This may best be accomplished by having the patient look downward so that the scleral portion of the bulb may be felt through the lid, and not the hard cornea. The wrists may be rested on the cheeks, and using the index or middle fingers on the lid over the eyeball, an estimate of the intra-ocular tension is judged by the amount of pressure necessary to feel a dimple made on the sclera, using pressure alternately with one finger, then the other.

Prognosis:

Generally speaking, the cure or control of glaucoma depends on the stage in which the disease is found. Unfortunately, cases of glaucoma that are discovered late (which happens too frequently) have lost much function and the resistance of the eye has become lowered to such an extent that the prognosis must be guarded. The ocular functions that have been lost by the ravages of glaucoma are lost permanently, and all that can be done is to maintain what is still intact. The proper management of these cases is one of the most difficult problems with which the oculist has to deal. Many factors must be taken into consideration, not the least among which are the character and temperament of the patient. The diagnosis in all its phases is of prime importance, after which the question of treatment assumes paramount importance.

ABSTRACT

SAYS CLEANLINESS WILL CONTROL EPIDEMIC VIRUS CONJUNCTIVITIS

The prevention of epidemic virus conjunctivitis, an eye disease which recently has been sweeping certain sections of the West Coast, "as of other infections concerning the eye, is definitely related to the prevention of contamination by soiled hands and linens," *The Journal of the American Medical Association* for February 7 advises in an editorial, adding that "In industrial plants, medical control of the industrial worker is necessary." *The Journal* explains that although the cause of the disease has not yet been determined, all observers believe that it is a specific virus. The editorial says:

"During the summer of 1941, according to Holmes, a rapidly spreading type of acute conjunctivitis raged in Oahu, Hawaii. At first, patients and doctors called it 'pink eye.' However, when repeated cultures and smears were made from conjunctival scrapings and secretions from more than fifty cases, investigators found it impossible to determine any offending organism. In October a considerable number of cases began to appear in California, and the peak of the outbreak was reached in December. At that time authorities noted that two per cent of workers in some ship building plants were affected, but the percentage of those affected was higher in special groups, such as welders, whose eyes are notoriously subjected to the trauma of light.

"After an incubation period of from two to five days the patients experience pain, excessive lacrimation and the feeling that some granular dusty body or some other foreign substance is in the eye. There is extensive edema, but a purulent discharge is seldom seen. The upper lids are usually reddened and swollen, and blepharospasm is encountered. . . .

"In most instances the disease seemed to be self limited. It pursues a leisurely clinical course, in the absence of complications, lasting from two to three weeks. When developed, the eyes remained irritated for from four to six weeks or longer. . . .

"Thus far attempts to determine the cause of this conjunctivitis have been unavailing, but practically all the observers believe that a specific virus is responsible. . . . Studies are being continued in several laboratories with a view to isolating a virus or developing more information concerning the nature of the infection.

"As is usual, the person who became infected was inclined to claim as the cause the last activity in which he engaged. The worker at an emery wheel was certain that a piece of the wheel struck his eye, the worker in the pineapple canneries stated that pineapple juice in the eye was responsible, swimmers said that the infection was due to swimming in contaminated water, and welders felt that the disease was directly due to the welding process. . . .

"The condition as it occurred in California seemed to be much less virulent and to have a lower grade transmission rate than that in Hawaii. Thus far all methods of specific treatment have been unavailing. . . . Most comforting was the application of cold compresses. . . ."

PRACTICAL POINTS IN ENDOCRINE DIAGNOSIS AND THERAPY*

JAMES H. HUTTON, M.D.
CHICAGO

Speaking as one clinician to another, I shall discuss a few diagnostic and therapeutic points that have been useful in my practice. I hope you may find them of some service in your own work. I also want to discuss a few endocrinopathies that are apt to confront any practitioner and to show how they may be recognized with reasonable certainty and adequately treated without recourse to expensive laboratory procedures. Let me hasten to say that I fully appreciate the value of the laboratory, but extensive facilities are not always available and many patients cannot afford them. Most patients are dependent on their daily work for their living. It is our duty to keep them on the job with as little inconvenience as possible and at a price they can afford to pay.

In the more than twenty years since I became interested in this field it has undergone a number of interesting and sometimes disturbing changes. When this academy was founded only a few clinicians and still fewer physiologists were interested in the subject. To confess an interest in this field was to subject oneself to suspicion or ridicule on the part of his colleagues. The literature was contributed largely by clinicians who recorded their clinical observations, explaining them as best they could by theories of their own devising. But the general attitude of leaders in medicine was that probably few endocrinopathies existed, that these could seldom be recognized and then could not be effectively treated.

Late in the twenties the physiologists began to take an active interest in endocrinology and ever since have dominated its literature. The clinician was completely eclipsed and his observations disregarded. To a large extent this is still true. The literature has become too voluminous for any one man to read unless he is almost solely interested in this field. It is filled with considerations of laboratory encounters with rats, rabbits, mice, guinea-pigs and monkeys. But the results of experiments on these animals are often not applicable to our patients, and, more important, the clinical observations recorded by the early workers in many cases have been verified later by research workers. For example, Engelbach claimed that ovarian insufficiency was sometimes responsible for the afternoon rise in temperature experienced by its victims. Twenty years later Rubenstein, by careful research, showed that body temperature is influenced by ovarian activity.

During the last ten years workers in research institutions have attacked various problems in this field and have contributed a great deal of significant data. Unfortunately, much of this work is based on or controlled by elaborate laboratory procedures which are not available to the majority of practitioners and, hence, to most patients.

To illustrate: A case of virilism was recently referred to me. She was partially bald, had a heavy beard and a heavy growth of hair over the entire body. She had not menstruated for eighteen months. Victims of this disorder often excrete excessive amounts of androgenic material in the urine. That finding is believed to point to the adrenals as the responsible organ, but some of the best laboratories in Chicago do not make these determinations. Perirenal insufflation of air sometimes allows the roentgenologist to demonstrate an adrenal tumor, but this procedure is not without danger. Furthermore, adenomas of the adrenal cortex, too small to be demonstrated by the x-ray and even difficult of recognition by the surgeon after he has the adrenal in his hand, may be sufficient to cause virilism. So it may be said that in many cases these adenomas cannot be recognized preoperatively.

In many endocrinopathies a careful history and physical examination plus a therapeutic test will establish the diagnosis with enough certainty to indicate the correct line of treatment. Twenty-five years ago the late John B. Murphy once said to a student, "Doctor, if you'll let the patient tell his story, he'll tell you what his trouble is." That is still true to the extent that the history in many cases furnishes more significant data than almost any other procedure. I have seen patients in research institutions where a careful history and physical examination would have arrived at the same diagnosis that a half dozen consultants and an extensive amount of laboratory work reached.

Let me illustrate: Often the story of the woman victim of pituitary insufficiency is that the onset of her trouble followed pregnancy, an infection or some surgical procedure, especially one involving the opening of the abdomen under ether anesthesia. If she had babies she probably could not nurse them. Or she may have nursed the first one for a few months during which, in many cases, she took on considerable weight. Subsequent babies she could not nurse at all, but she took on additional weight and suffered from further physical incapacity in the form of headaches, fatigue and obesity.

An example is Mrs. J., aged fifty-two. She complained of headaches which began following the birth of her last child twenty years ago. She was nervous and emotional over the same period, but this had become worse in recent months. There was shortness of breath, fatigue and general discomfort in her head. She was 61¾ inches in height

* Presented before the Terre Haute Academy of Medicine, October 3, 1941.

and weighed 116 pounds. She had the typical small delicate osseous system of hypopituitarism. Her B. M. R. was minus 25%. The sugar curve during the glucose tolerance test was 81 mg., 114 mg., 90 mg. and 59 mg. There were no other significant findings. Injection of 0.5 cc. of anterior lobe extract relieved the headache within one hour. The complete relief of symptoms brought about by three such injections per week confirmed the diagnosis.

A woman who experiences a headache just prior to, during or within forty-eight hours after her menstrual periods usually owes her trouble to pituitary deficiency. Some victims of hypopituitarism become chilly and experience a craving for sweets about the menstrual time. If she experiences abdominal pain, nausea, vomiting and depression at the periods her trouble is probably on an ovarian insufficiency basis.

The victim of thyroid deficiency is sensitive to cold, enjoys hot weather and usually perspires but little. The victim of adrenal insufficiency is sensitive to cold but is also adversely affected by hot weather which prostrates him.

Victims of hypothyroidism often exhibit symptoms in the nervous system, especially mental retardation, loss of memory and paresthesia. In the gastro-intestinal tract the symptoms range from marked constipation to those of ulcer. This is true to such an extent that in patients suspected of ulcer hypothyroidism should be ruled out before any extensive gastrointestinal study is undertaken. In some the correct dose of thyroid can be determined by the condition of the bowels. Under adequate dosage the bowels are regular; if an insufficient dose is given, constipation persists.

Obese patients who complain of diurnal somnolence are usually victims of pituitary and thyroid deficiency.

To illustrate: A twenty-five-year-old girl complained that for ten years she had suffered from an extreme degree of diurnal somnolence, with occasional attacks of nocturnal insomnia; attacks of weakness, nervousness and faintness when she went too long without food; voracious appetite; marked thirst; and menstrual headache. The developmental history showed that she was a small baby, as is often true of victims of pituitary deficiency. Bed-wetting was prolonged until puberty. This often occurs with hypopituitarism. Puberty occurred at a normal age, but during the first year or so the periods lasted ten to fourteen days. This also often occurs with pituitary dyscrasia. Her B. M. R. was minus 25%, but she showed few signs of hypothyroidism and the administration of thyroid in doses sufficient to restore the B. M. R. to normal did not produce any relief. Benzedrine sulphate had helped the somnolence. One-half cubic centimeter of anterior pituitary extract gave her striking relief within an hour.

The physical examination furnishes other important data. In hypothyroidism the skin is dry and rough. The hair is brittle. The teeth, if the condition arose in early years, are slow in erupting, irregularly placed and of poor quality. Pituitary deficiency is often associated with a skin that is soft and easily bruised and with hair that is soft and silky.

The height is significant. If the patient is six feet in height it is reasonable to believe that an adequate amount of growth hormone was present during the growing years. In such cases the pituitary often becomes deficient in later years. If the height is below average, it is likely that some pituitary deficiency was present in the early years, which may easily extend up to the time the patient comes under observation and be responsible for part of his complaints.

The acquisition and distribution of obesity offers further help. Obesity due to pituitary deficiency often comes on rapidly, beginning after pregnancy, an infection or operation. The patient who tells of having gained twenty pounds or more in the six months before coming to the doctor will in ninety per cent of the cases show some pituitary deficiency. The universal distribution of hypothyroid obesity is generally recognized, but some do not believe that the girdle type of distribution indicates hypopituitarism. I still cling to the belief that it does.

The basal metabolic rate is one of the commonest and most easily accessible laboratory procedures and is subject to a wide variety of misinterpretations. The consensus is that a low B. M. R. signifies hypothyroidism. This is often not at all true. If the patient has a low B. M. R., with but few clinical signs of hypothyroidism, it is quite likely that his low B. M. R. is founded on some other basis. It may be due to malnutrition or some other nonendocrine disorder, or it may be due to pituitary or adrenal insufficiency. A therapeutic test will answer the question. Give the patient one or two grains of thyroid per day. If the trouble is due to hypothyroidism he will shortly—that is, within ten days—begin to feel somewhat better. If his trouble is due to hypo-adrenia, the administration of thyroid will be followed by an exacerbation of his symptoms, some heart consciousness and a general increase in his sense of ill being. If his trouble is on a pituitary deficiency basis, the administration of pituitary extracts is apt to be followed within an hour by some relief of symptoms. The administration of thyroid to such patients sometimes aggravates the headache.

An elevated B. M. R. is commonly thought to indicate hyperthyroidism. That is not always true. Obese victims of pituitary and thyroid insufficiency often have a marked elevation of their B. M. R. and yet need thyroid. The therapeutic test again will answer the question. When there are no signs of hyperthyroidism except the increased B. M. R. and a rapid pulse, but a number of physical signs of pituitary and thyroid deficiency, it is well to give small doses of thyroid. Extracts of the anterior and posterior lobe should also be given two or three times a week. Within ten days there is

likely to be a decrease in the pulse rate and some relief of symptoms.

Nearly twenty years ago Engelbach told me about one of his patients, an obese woman who showed many clinical signs of thyroid and pituitary deficiency but had a rapid pulse and a B. M. R. of plus 40%. For a long time he feared to give her thyroid, but when he finally did her pulse shortly became slower and she rapidly lost weight and experienced general improvement. The B. M. R. of such patients is not often plus 40% but not infrequently is plus 30%.

It is assumed that such laboratory facilities as are readily available will be used. In addition to blood counts and urinalyses certain rather simple blood chemistry determinations are often helpful. Uric acid is often increased in pituitary deficiency. Cholesterol is said to be increased in hypothyroidism—in my experience this is often not true. The blood sugar curve during the glucose tolerance test is sometimes helpful. A high curve is often found in obese patients. These should not be given extracts of either lobe of the pituitary. A flat curve with the sugar being below 70 mg. at the end of two and one half hours after taking glucose is frequently found in victims of pituitary insufficiency. This finding also explains the headache and faintness which some people experience an hour or so before meal time. A lump of sugar dissolved on the tongue an hour or so before lunch or dinner or immediately on arising will often prevent such headaches.

Following are some of the more common endocrinopathies with which every one is confronted.

Froehlich's Syndrome. Much has been written about the difficulty of establishing a positive diagnosis. For a moment forget the name and remember that, practically, the syndrome is represented in every fat youngster with hypoplastic genitalia. Nearly every neighborhood offers an example. These youngsters are victims of thyroid and pituitary deficiency just as is the classical example of Froehlich's syndrome. These findings are not sufficient, of course, to make a positive diagnosis, but they point the way for further investigation. Other physical findings are a delicate easily bruised skin, fine silky hair, tapering pointed fingers, and genu valgum. The height is not significant except as it has a bearing on the treatment.

Helpful laboratory data are the blood count. Many cases show a lymphocytosis. Blood cholesterol and uric acid are often above normal. The blood sugar is frequently low. The B. M. R. may be elevated in some cases as already mentioned, but is usually below normal. Absence of creatinuria is significant of hypothyroidism. The bone age may be less than the chronological age, indicating thyroid deficiency.

Treatment:—They all need thyroid, which should be given in gradually increasing doses until the tolerance is established. This may be determined by noting the tachycardia, tremor, nervousness or insomnia. When the dose which causes these symptoms is reached, it should be reduced about twenty-five per cent and continued at that level. Unless they have a high blood sugar posterior lobe extracts should be given in doses just short of the amount causing annoying intestinal cramps. This can be determined only by trial.

Those of normal height or beyond should be given some gonadotropic preparation such as Antuitrin-S, A.P.L., etc., in doses of one hundred units two or three times a week. Because the gonadotropic compounds are thought to hasten closure of the epiphyseal lines, the short patients should be given anterior pituitary extract, which seems to stimulate growth. These extracts, as well as the gonadotropic preparations, may be given in the same syringe and at the same time as the posterior lobe extracts. It is well to give these two or three times a week for about ninety days; then the injections should be reduced to one every four to five days, and at the end of another two months reduced to once a week. As the weight is lost and the genitalia approach normal, the frequency of injections may be further reduced, but the thyroid should be continued and the youngster should be seen every month or two for two or three years to make sure that there is no recurrence of the trouble.

Cryptorchidism. There should be no question about the diagnosis of this condition, but the difference in results reported by different workers is probably partially explained by a difference in standards of diagnosis. Practically, the migratory types of testes need treatment, but they should not be classed as cryptorchidism. Treatment should consist of some gonadotropic compound in doses of one hundred units three times a week. Some men prefer larger doses given daily or on alternate days until twenty doses are given, with a rest period of twenty days and then a repetition of the series. My own preference is to make the treatment continuous, preferably giving the injections three times a week for sixty to ninety days, depending on the youngster's response, and then decreasing the frequency as mentioned under Froehlich's syndrome. These youngsters should also have thyroid. A short series of injections of testosterone, 5 or 10 mg. two or three times a week, seems to hasten the recovery in some cases.

Children who are receiving thyroid and posterior lobe extracts plus gonadrotropic compounds or anterior lobe extracts should have the urine examined frequently. Glycosuria and hyperglycemia sometimes occur in the course of such treatment.

Menstrual Disorders—Functional Bleeding. A few years ago nobody described in the literature a case of menstrual disorder without mentioning the amount of estrogen in the blood or urine, or both. Frank showed that amenorrhea occurred when there was a normal amount, subnormal amount or an overabundance of estrogen and that a study of this substance offered no help in treatment. Until

quite recently it was believed that a study of the uterine mucosa furnished considerable information as to the relation of the ovarian function to the bleeding. Now it is admitted that this is not true.

For the past year or two a few research institutions have studied the urinary output of pregnandiol glucuronide and felt that this furnished an index to corpus luteum activity and its relation to the bleeding. That idea also has been abandoned.

One should determine by whatever method he deems best whether the bleeding occurs from a malignancy, fibroid or inflammatory condition in the pelvis. When these are ruled out he is likely to get as much information from the history and physical examination as from anything else. The menstrual history should be carefully studied as to the time of onset, the regularity, the amount and the duration. If any pain is present its location and time of occurrence should be noted. Premenstrual headache or one occurring just at the close of the period usually points to the pituitary. Chilliness and a craving for sweets also usually points to the pituitary.

Nearly twenty years ago Engelbach called attention to the fact that victims of pituitary deficiency often experienced a prolonged flow at their first period. This was followed by a long period of amenorrhea terminated by another profuse flow, this sequence being repeated two or three times before the periods were finally established at regular intervals.

The treatment of functional uterine bleeding is on a very unsatisfactory basis and for practical purposes is entirely empiric. Occasionally the administration of thyroid and calcium is helpful. In other instances the bleeding may be stopped by daily doses of 5 mg. of progesterone. In other cases it is checked by giving daily doses of 200 or 300 or 500 units of some gonadotropic compound. Other cases are controlled by injections of testosterone in doses of 25 mg. daily. Hamblen reported a series of cases that were controlled by the cyclic use of estrogen, followed by progesterone. Beginning one week after curettage or cessation of bleeding he gave fourteen daily doses of 10,000 or 20,000 units of estrogenic substance, followed by seven daily doses of 5 I.U. of progesterone. This series of treatments was repeated for three or six months. I have found sistomensin in doses of one or two ampules daily quite as effective as anything else. Occasionally one will need to use very small doses of x-ray or radium.

In general it may be said that up to the age of thirty-five gonadotropic preparations are apt to be effective. In the menopausal years estrogens will be found useful as the gonadotropic compounds are rarely helpful. Testosterone has been given to women of all ages. Its use seems illogical and in young women it has occasionally caused signs of masculinization.

There is much unprofitable discussion as to the percentage of menopausal women who experience symptoms of such severity as to require treatment. Some of them can be adequately treated by sound advice and simple sedatives. Others need estrogenic therapy. Lawrence says that estrin should not be used until urinary assay proves that prolan is being excreted. But again we have to consider the availability of laboratory facilities and the economic status of the patient. A therapeutic test will answer our questions. The doctor's knowledge of the patient, plus a careful history of the symptoms, will segregate most of those patients whose symptoms are on a psychoneurotic basis. A few injections of an estrin preparation will determine whether the woman is likely to be benefited by an extended course of this therapy.

The present custom is to give 5,000 or 10,000 units or more two or three times a week, or even daily. As the symptoms improve the intervals between doses are increased or the amount injected is decreased. This procedure is wrong. Usually 2,000 units two or three times a week will control the symptoms. If they do not, then larger doses may be used. I have seen women get along very well when they were given 1,000 units every six weeks. They did not do well when the injections were discontinued or when larger doses were given at shorter intervals.

These preparations are discussed in mouse, rat, Clauberg and international units. Many of them are now put up in containers carrying a statement as to the number of international units contained in each cubic centimeter of the solvent. These preparations are not absolutely interchangeable, and when theelin fails, amniotin may work, or when both fail progynon B or estrogenic hormones may control the symptoms.

Some men feel that the adequacy of the dose should be controlled by watching the vaginal smear. In my experience women are much more interested in their symptoms than they are in the appearance of vaginal mucosa, and the adequacy of dosage is more readily determined by watching the patient's symptomatic response than by any other measure. This also spares the woman the embarrassment of frequent vaginal examinations.

A number of preparations may be had for oral use—theelol, progynon DH, emmenin and estrogenic hormone tablets—and quite recently stilbestrol has become available. The first three have not been satisfactory in my practice and I seldom use them in menopausal patients. Stilbestrol may produce a number of unpleasant side reactions, and up to this time I have refused to give it to private patients.

The question is often asked: How long will treatment be needed? The only answer is that it will need to be given as long as necessary to control symptoms, but the interval between treatments may be increased or the amount injected decreased.

Some symptoms are better controlled by small doses of irradiation applied to the pituitary and adrenals than by any other measure. I usually give 50 r. with the following factors: 120 K. V., 3 M. A.,

2 mm. Al filter, 50 cm., skin target distance. The pituitary is treated on each side through a portal 10x10 cm. and the adrenals through a common portal 15x15 cm. Both organs are treated the same day. Headache, nervous tension, irritability and flashes respond particularly well to this therapy. X-ray does not take the place of estrin therapy but will control headache more promptly and for a longer time than the estrogenic compounds, and will reduce the amount of these substances necessary to control the other symptoms. This has been criticized on the ground that it has not been shown to alter the gonadotropic titers of the urine, but this is a task that we clinicians may leave to the research men. The clinical fact is that such simple therapy brings striking relief of some symptoms.

Some years ago the writer suggested this same therapy as a treatment for essential hypertension and diabetes. It brings striking symptomatic relief to about ninety per cent of hypertensives, accompanied by significant reduction of the blood pressure readings in approximately seventy per cent of the cases. These reduced levels can be maintained by further treatments as needed in about sixty per cent of the cases. This therapy is so simple, absolutely safe and widely available that its failure of general acceptance is unfortunate.

Thyroid: — This has an undeservedly bad reputation. All endocrine deficiencies, except hypogonadism in thin individuals and hypo-adrenia, are better treated if tolerance doses of thyroid are added to the specific drugs. I have often seen patients who said they could not take thyroid, but investigation showed that the dose had merely been too large. Occasionally thyroid causes headache. This is particularly true in victims of pituitary deficiency and this fact will occasionally aid in the diagnosis of hypopituitarism. One should always start with small doses, usually one grain per day, and the dose should be increased not oftener than once a week, and then only one-half grain per day should be added. The dose in grains has no particular significance. The patient needs all he can take without discomfort, whether that be one grain or ten grains per day, although few patients will take more than four grains daily.

It is said that patients with hypertension should not take thyroid. This is not true. Some cases of hypertension can be controlled by adequate doses of thyroid. I watched one man over a period of twenty years whose hypertension could be reduced to normal and kept there by adequate thyroid therapy. It did not cure his hypertension. When thyroid was withdrawn the blood pressure rose; when it was resumed the blood pressure decreased.

It is said that endocrine therapy is substitution therapy, and that it has no tendency to stimulate the gland whose extract is given. I do not know whether this is true, but I do know that victims of hypothyroidism, hypopituitarism and hypogonadism can be relieved of their symptoms after a time and then continue in good health without further medication.

CONCLUSION

In presenting these suggestions I do not wish to convey the impression that the simple maneuvers mentioned are all that is needed to arrive at an accurate diagnosis of the endocrinopathies. But if these points are kept in mind, few endocrine disorders will be completely missed. They at least serve to call the doctor's attention to the possibility of some endocrine disorder in the patient's make-up and thus indicate the direction for further study.

ABSTRACT

BELIEVES THAT RESPIRATORY INFECTIONS ARE LARGELY AIR-BORNE

"The hypothesis that respiratory infections are largely air-borne is considered more satisfactory than the theory that they are spread by direct contact because of the findings along three distinct lines of study," Leon Buchbinder, Ph.D., New York, declares in *The Journal of the American Medical Association* for February 28.

He says that the first consists of evidence revealed by surveys and laboratory studies. "In the laboratory," he explains, "it has been shown that streptococci artificially sneezed into air float for relatively long periods. They settle out geometrically and, having settled, they die geometrically at rates which vary with the length of the bacterial chain and prevailing conditions of the environment. Organisms which have settled out of air may be readily resuspended therein. In the presence of sunlight and even diffuse daylight which have passed through the glass of a window, both streptococci and pneumococci on a simulated floor die at a much faster rate than they do in the dark. If the air-borne route is an important vehicle for the spread of respiratory infection, then ordinary diffuse daylight in rooms may act as a strong deterrent to the spread of such infections. . . .

"Investigations of hospital infections, particularly those occurring in contagious disease hospitals, have furnished a second group of data supporting the air-borne hypothesis. . . .

"The third line of evidence has been given by what might be called a therapeutic test of the air-borne hypothesis. Measures designed to rid institutional environments of pathogenic microorganisms should also reduce the incidence of new infections therein. Sufficient laboratory evidence now exists to indicate that ultraviolet light and chemical sprays . . . may serve as powerful bactericides. The few reports on clinical trials thus far available contain suggestive evidence that in children's hospitals and operating rooms the use of ultraviolet light reduces the incidence of new infections. Furthermore, several reports indicate that the spread of chickenpox in institutions is inhibited by this means. . . ."

THE EMOTIONAL ASPECT IN PEDIATRICS*

BYRON K. RUST, M.D.
INDIANAPOLIS

This subject is presented not as something new or original, but just as a reminder that this phase of the practice of medicine still exists, that it is probably more extensive than ever before, and that it must be recognized and appraised accurately by the successful practitioner. In this day of surgical intervention, chemotherapy, bacteriological differentiations and laboratory diagnosis, the fact that the patient has a mind which may be playing a part in disease is easily overlooked.

It is a well-known fact that the man with tuberculosis who has enough insurance or other sources of income to relieve him from financial worries has a better chance to recover than does the man who finds his family in a precarious financial situation as a result of his disability. Coronary disease, gastric and duodenal ulcer, and many other definite medical entities are influenced by the emotional variations of those afflicted.

To fully understand and interpret the part emotion plays in pediatrics, many factors must be considered. First of all, it is necessary not only to study emotional variances in the child being considered, but also those of his parents or other adults with whom the child has frequent contact, for during the early formative period the child is inclined to mirror the emotions exhibited by the parents.

The emotional environment in which a child develops very definitely influences the physical as well as the mental health of the child. How apparent is the difference—in reactions of parents according to their age level. On the average, young parents are much more apt to present an emotionally healthy environment in which to develop a child than older parents, in spite of the fact that the grandparents in this instance are loud in acclaiming the irresponsibility of these young parents and wonder "what the child will ever amount to." The apprehension which seems to increase with the adult years is very apt to leave its mark on the first child born to older parents. Previous tragic experiences in the loss of a child may very definitely alter and mould the development of subsequent children. Naturally these statements are most general, but are based on my experiences as I have witnessed the effects from certain family types as manifested by variations in behavior patterns of the children I have observed. For the individual case, however, it is necessary to ascertain the emotional stability, or lack thereof, in the parents and other adults with whom the child has contact, as well as in the child himself. Not only adults must be considered, but reactions to brothers and sisters, playmates and any other associations which may play a part.

It has always been a matter of great interest to me to observe the various patterns of family life with which one is confronted, and to try to analyze why some are successful units and others are not. I believe that particularly the general practitioners and pediatricians have a far greater opportunity of knowing the intimate details of individual family units than anyone else. From these experiences the observing practitioner can not help but acquire a therapeutic armamentarium (not found in any pharmacopoeia, but of equally great importance) if he will only take the time—and this is the greatest obstacle, for such a study and direction is very time-consuming and too often receives little reward.

It is my belief that happiness is the emotion which has the greatest beneficial effect upon the individual health, consequently the child raised in a truly happy home-life certainly has a decided advantage over one in an unhappy environment.

So much for generalities, now let us consider some practical examples of pediatric problems in which emotion plays a part. I shall divide these considerations according to periods or age levels.

The new-born infant may be definitely and directly affected by the emotional variations of the mother. This is best demonstrated by some of the factors in successfully establishing breast feeding. First of all, I believe that the trend in recent years on the part of the attending physician has been to grossly underestimate the value of breast miik in infant feeding. I definitely believe that the healthy mother can nurse her baby today just as satisfactorily as previous generations did if two factors are considered: first, the overcoming of the mother's lack of confidence in her nursing ability, and second, the use of routine "p.c. formula" in early infancy. In considering the first point, artificial feeding has been so prevalent in recent years that the average mother is emotionally off balance at the beginning of lactation, because of her fear of her inability to feed her baby and her fear that her baby is hungry if something is not given which she can see and measure to the fraction of the ounce. Encouragement from doctors and nurses should be more frequently given than is today given on the average obstetrical floor. Too often I have found a new mother in the depths of despair because some nurse has unthinkingly made some discouraging remark about the baby having lost more weight, cries because he is hungry, etc. If only the doctor or nurse would take the time to explain that all infants lose weight at first, regardless of whether food is or is not given, and that crying is normal and

* Read before a meeting of the Marion County Medical Society on February 10, 1942.

healthful, and would present an encouraging picture by explaining the normal, many of these emotional storms could be averted and more breast-fed babies would be the result. One of the newly-born infant's first emotions is that of hunger, and it is this emotion which stimulates it to nurse vigorously when placed at the mother's breast. The routine emptying of the mother's breasts when they become engorged is essential for the successful establishment of breast feeding, and this usually will not occur if this infant's hunger is being satisfied with greater ease by pouring it down their throats as is done with the so-called "p.c. formula." If you would examine the size of the perforations in the nipples on the bottles in the newborn nurseries, you would know what I mean by "pouring it down their throats." The path of least resistance is tempting at any age.

Then the baby is taken home, and unless this is an old experience for the family the emotional fireworks about to be displayed are usually quite brilliant. There is no need to describe those hectic few days which so frequently follow the home-coming of the first baby, for you have listened to this tale sufficiently—possibly you even have personal recollections of this period in your own family life which makes you better able to appreciate the scene. Unless emotional stability is soon attained by these adults, the effects are transmitted to the infant and a diagnosis of colic, or more modern—that of hypertonicity or pylorospasm—may result. I have heard Dr. Brenneman make the statement, seriously, that the therapeutic results are just as effective if the parents of the hypertonic infant receive the sedatives instead of the infant.

The fact that many mothers can nurse second or subsequent infants even though they didn't nurse their first can be attributed to the composure of multiparae because their fears are usually much less extensive.

After infancy the child's own emotions begin to play a more important part. Various fear reactions may be established to such a degree that rest, and subsequently health, may be affected. Fear of the dark, of the train, of dogs, etc., are frequent fear reactions in children of early ages, but these are of short duration if handled intelligently by the parents. If not handled properly, however, these reactions may pyramid and have lasting effects. I have known children who become almost hysterical and have digestive disturbances when hearing thunder—the answer can usually be found in the mother confessing her great fear of thunder and lightning. A good example of the opposite effect was observed by me in my own children one time during a severe electrical storm, when they were quite small. There was a sudden terrifying burst of thunder, and they instinctively turned to their mother with a frightened, questioning expression on their faces. The incident was brushed off lightly by their mother remarking "Listen to the clouds bump into each other." She said this laughingly, and immediately their facial expressions changed to smiles and they, too, thought it funny. They have no fear of storms today, but this would probably not be true if in their first early experiences they had, during storms, observed fear in their mother. Another point here is that it is far more effective with small children to pass off these fear reactions lightly than it is to seriously and laboriously go into a long dissertation or explanation; the more you discuss it, too often the greater their confusion and the greater the significance it attains in their minds, and the more difficult and slower is their adjustment.

Probably the most frequent complaint of parents of children of this age-group is that of poor appetite—what the parents mean is that the child does not eat enough to satisfy the adults standards. This is an old story and need not be considered in detail here other than to emphasize certain clinical pictures which may result. This attempt on the part of the parents to force more food down their child often results in emotional reactions on the part of the child, manifested by vomiting or a defensive complaint of pain in the region of the stomach at meal time. This is not an infrequent case in any pediatrician's office, and certainly is corrected only by carefully explaining to the parent the necessity of taking the pressure off at meal time in order to prevent these emotional reactions.

During the pre-school period of two to four years of age many children go through an emotional phase that is most distressing and perplexing to parents. I am referring to the so-called "period of negativism," or as is so aptly referred to by some writers as "the first adolescence" or "the period of contra-suggestibility." Most of the parents' friends will consider the child badly spoiled and "What I would do if he were mine, etc.," is the way they refer to him until they go through a period of this with one of their own children. Many emotional storms occur along the pathway of this trying period when daddy says "yes" and sonny says "no" most emphatically. One speaker who I heard discuss this phase stated very sensibly that it is a period you go through and not around, and the more calm the parents the shorter the course. How true this is about so many of the exasperating emotional acts of this age, which irritate the parents because of their adult standards. The intelligent parent is one who has the ability to differentiate between what is important and that which is unimportant, and between what it is best to ignore and what should receive adequate consideration.

By the time the child reaches school the vastness of his world has increased considerably, and many new possibilities must be considered in determining the actual background for irregularities in health and behavior. The adjustment the six-year-old makes at the beginning of school is

difficult for many, especially if they are unhappy in their new situation. It has been found by careful studies that approximately three-fourths of first grade children are not ready for reading, and many are not ready until well into the third grade, but the curriculum requires a certain definite progress in reading from the time they enter school. When a child fails to meet the competition in the classroom a decided change in his behavior may be noticed by his parents, and on presentation to his doctor for examination gastro-intestinal disturbances, vague pains, loss of appetite, headaches and other complaints may be mentioned in the history. The difficulty with reading or other school-work is rarely mentioned by the parents unless they are asked directly about school-work.

There are other influences in our modern existence which may play a part, such as the radio, the movies, etc. I am not decrying the existence of these modern inventions, but I do believe that there is too great a tendency on the part of parents to find a few hours of respite by parking the children at the corner movie no matter what type of show is being shown. A little more old-fashioned back yard play might have a beneficial effect on many children.

One night just after I had retired I received an urgent call from a frantic mother who had just established a diagnosis of meningitis on her twelve-year-old daughter. Upon arrival, the mother greeted me with the information that she had gone into her child's room and had found her in a stupor, incoherent, and with one side paralyzed, but the child had seemed well on retiring. She had not been feeling well for several weeks, however. Examination of the child readily revealed an extreme emotional upset which was not easily quieted. I knew this child to be emotionally unstable, as were her parents, but in order to be most helpful I had to ascertain what had precipitated this attack. Questioning the child with the mother out of the room offered no help as to etiology. A talk with her school teacher the next day gave forth the information that the child's work for the previous three weeks had very peculiarly become poor, and that she had become inattentive and very emotional, whereas ordinarily she was a very satisfactory pupil. The problem was answered the next day by the child's revelation to me that she had a brain tumor—etiology, Bette Davis in "Dark Victory" three weeks before. It is not fair to these cases to pass them off lightly as malingerers or hysterias, for, as in this case, they are definitely ill. This child had lost weight and looked as though she had had a rather severe illness.

One of my first calls one Monday morning was to see an eight-year-old boy, who ordinarily was very stable, who had complained of abdominal discomfort, with vomiting that morning and the morning before. Because of some previous experiences with this child I had put a big question mark on his appendix and felt that some day he was apt to present a picture where I would be justified in making a diagnosis of appendicitis. Apropos to this, may I inject the statement here, since I have previously mentioned gastro-intestinal symptoms several times as manifestations of emotional disturbances, that the possibility of an acute abdomen, namely, acute appendicitis, in children, must always be ruled out first if a history of abdominal pain, particularly with vomiting, is given. This is the one common condition in children where delay in making the correct diagnosis can be so costly. On examination of this eight-year-old boy he seemed to be completely recovered from any abnormal feeling, and there was nothing suggestive from the physical-examination findings. The mother volunteered the information, however, that his sleep Saturday and Sunday nights had been quite restless, with talking in his sleep, which was unusual. On further questioning I found that they had heard him trying to say something about a hand. It was then disclosed that one of the Saturday afternoon double features was a bloodcurdler called "The Haunted Hand." The impressions derived from this afternoon's entertainment had been sufficient to cause restless sleep and emotional vomiting upon arising in this eight-year-old boy.

Another rather definite clinical picture of abnormal behavior will be observed frequently in homes where difficulties between parents have arisen. Too often where parents are divorced or separated the child reacts in such a manner that the adult caring for the child questions his health. This change in the child results from confusion and fear of security. Naturally, these are difficult cases to manage, but it is well to acquaint the parents with the facts that are back of the problem.

There are many other situations that definitely affect a child and which might be considered, but which time and space will not permit me to cover in this article. In conclusion, I repeat that the purpose of this paper is merely to re-emphasize a phase of pediatrics easily overlooked or neglected. I also wish to warn against the other extreme of placing too much abnormal behavior in this classification, for it is safe to make such a diagnosis only after all other clinical possibilities have been considered and ruled out.

One need not be a specially trained neuropsychiatrist in order to be helpful in these cases. All that is needed is average common sense, willingness to take a little extra time in the individual case study, and a careful observation of child patterns according to age levels. Perhaps the best training is to have a few children of your own.

DON'T FORGET THE ANNUAL MEETING
OF THE
AMERICAN MEDICAL ASSOSIATION
ATLANTIC CITY
JUNE 8-12, 1942

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

Copyright, 1942, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis

Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis ..... Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette ..... Dec. 31, 1942
Herman M. Baker, M.D., Evansville ..... Dec. 31, 1943
L. G. Montgomery, M.D., Muncie ..... Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis ..... Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend ..... Dec. 31, 1944

MAY, 1942

Editorials

CONSERVATION OF VISION NUMBER

As has been the custom for several years past, THE JOURNAL presents herewith the annual Conservation of Vision Number, planned and prepared by a group of "eye men." In addition to the regular association Committee on Conservation, we have had the assistance of the section officers and those of the Indiana Academy of Ophthalmology and Otolaryngology, and to these men THE JOURNAL staff wishes to express its sincere thanks for a job well done.

One of the subjects presented, that having to do with trachoma, should be of unusual interest to medical men in the southern section of the state, in particular, for *there is* plenty of trachoma in southern Indiana, much of it generally unrecognized. Another subject, dealing with the more recent advances in eye surgery is vitally important; recent years have brought forth many new surgical operations, some of which have restored various degrees of vision in cases heretofore deemed hopeless.

Nor is the military phase overlooked, since "The Eyes and the Military Services" presents some interesting developments. During the examinations of the first of the Selective Service groups, an alarming proportion of our youth was found to be physically defective, a large per cent of the rejections being based on defective vision. In a group of some one hundred fifty advisory board eye examinations we found a large number whose vision was far below the Army standard, yet had they had proper attention at an early age their vision could have been restored to a practically normal figure.

The matter of refraction, far more important than most medical men realize, comes in for a discussion—what should be done with the myopes?—since this group affords many special problems. The early diagnosis of glaucoma, commonly first recognized during the course of a competent, thorough refraction, is too often well established before it is recognized. And all too often this recognition comes only after it is too late to do much about it.

Squint, commonly termed "cross eyes," far too often receives no attention at the hands of the family physicians until nothing remains as a corrective measure other than a surgical operation. Squint cases should be referred to the eye physician immediately.

There is so much to the field of conservation of vision that it cannot be covered in a few papers, but the subjects presented in this issue are conditions commonly met in the daily routine of the physician. It is hoped that this presentation will stimulate a higher degree of interest in visual problems.

ARMY STREAMLINES RECRUITING

In order to recruit five thousand physicians as needed at once and an additional eleven thousand by the end of the year, the Army has streamlined its method by which a physician may obtain a commission in the Medical Corps.

Within two weeks an Army team of two officers and two clerks will be stationed in Indiana to contact physicians personally and commission them on the spot. The officers who will do this work in Indiana are Captain Clarence E. Northrup and Captain J. H. Miller.

"Speed in commissioning physicians will be gained by decentralizing the work," Dr. Frank Lahey, chairman of the Directing Board of the Procurement and Assignment Service said. "The teams will have the names of those physicians who have been cleared by the Procurement and Assignment Service and the names in the files of the Surgeon General's Office who have unissued commissions. They will be able to interview these physicians personally. They will give physical examinations. They will aid the men in filling out their application forms. They will give the men their rank and swear them in right there on the spot. One of the team will be empowered to administer the oath. Don't let anyone get the idea that this is usurping the functions of Procurement and Assignment by the Army. It is merely co-operation to speed up things. One of the reasons that the whole program has been slowed up is because the Army has not been able to commission men fast enough. Now the Army can go out in the field and commission them. These Army teams will be empowered to commission men as first lieutenants and captains. Commissions above the rank of captain must come direct

from the Adjutant General's Office, based on information obtained by the state enrolling team.

"This speed-up plan emphasizes the necessity of every physician filling out and returning the new enrollment form and attached questionnaire at the earliest possible time," Doctor Lahey said.

The Directing Board has decided not to provide certificates and buttons at this time for those who volunteer. However, the first page of each questionnaire will be returned to the state chairmen so that a record may be had in each State Procurement and Assignment Office of those who have volunteered their services and the specific activity each physician desires and feels himself qualified to pursue during the national emergency.

This general policy will be followed in awarding commissions and determining what rank an officer will receive on his initial assignment.

From the age of twenty-four to thirty-seven a physician will be commissioned as a first lieutenant unless he is certified or has formal training required for examination by a specialty board or other nationally recognized special society or association, or when he has the appropriate training for the job to be done. If he has such qualifications he may be commissioned as a captain. A physician in the age group from thirty-seven to forty-five who has had general experience and unclassified training may be commissioned as a captain. If he has the specialized training or special qualifications mentioned above, he may be commissioned as a major.

In the age group from forty-five to fifty-five no one will be commissioned at a grade lower than major. He must have the additional training and experience which would justify initial assignment to duty as (1) chief of service, (2) chief of section, or (3) occupy an executive office. "Lieutenant colonels and colonels among newly commissioned men will be as scarce as hens' teeth and will apply only to specific jobs for which an individual is specially qualified," an Army authority said.

Rate of pay table:

	With Dependents	*Without Dependents*
Lieutenant Colonel	$5,588	$4,676
Major	4,848	3,936
Captain	3,792	3,336
First Lieutenant	3,152	2,696

TIME OUT FOR THINKING

Medical progress oft resembles that of nations. Medical discoveries and technics develop with such a confusive rapidity that it causes the average practitioner to ponder how far behind he has fallen. Thus he forgets that opportunities daily confront him, and that the "busy doctor" is the one who is most likely to overlook these things. His simpler involvements might be contrasted with those of Switzerland, as opposed to the pre-occupation of great Empires which take for granted their Singapores, Batavias, Rangoons, etc. But the vine of opportunity yields few fruits without soil cultivation and vine pruning. The successful harvester *must* take "time out for thinking."

Let us consider two examples of opportunities that have hammered unheeded at the doors of medicine during recent years. From 1916 to 1940 the entire medical world treated syphilis by weekly injections of salvarsan. When sulfonamide therapy proved the necessity of essential blood levels of the drug, the more or less continuous treatment was substituted for syphilis. Yet this "fireman-keeps-fighting-the-fire-until-it-is out" rationale is so reasonable that every physician wonders why he didn't think of it first.

Every thinking practitioner must have suspected that the wave of cholecystectomies in the early twenties, regarded as standard treatment for nervous indigestion, was contrary to the laws of intestinal peristalsis, so simplified by Alvarez and others.

Similar instances of opportunities missed for the want of simple clear thinking are innumerable. Sir James Mackenzie's now universally accepted concept of heart diseases was arrived at while that general practitioner drove his buggy along country roads.

An opportunity, that's his for the asking, confronts every practitioner in the ever-increasing number of joint and muscle pains. Still confused by the occasional cases actually due to focal infections —faulty skeletal mechanics—by far the principal cause of such pains, has been almost forgotten by the general practitioner.

This is particularly true in low-back pain. Teeth, tonsils, uteri, et cetera, are still being removed to relieve such pains, and do—so long as the patient lies abed recovering from these operations. Just as radical is the present vogue for spine surgery. It seems reasonable to prophesy that, during the afteryears of reflection, the practice of somewhat indiscriminate removal of alleged intervertebral ruptured discs, sectioning of pyriform muscles and the like will be greatly modified. The unbalanced pelvis, spine, hip or shoulder will again be relieved of associated muscle spasm—the cause of many so-called "rheumatic pains"—by the general practitioner with a yen for corrective mechanics.

A simple formula to prepare the practitioner might be epitomized by the following recipe: leaf through a simple compend of anatomy, mix that with a chapter of muscle and joint physiology, season with the mechanical reckoning of a good carpenter, but above all be sure to let it jell slowly, by stirring in a seasoning of *clear thinking.*

THE CHILD-HEALTH CONFERENCE

It is a serious indictment to make, but it must be said that the health of children of pre-school age receives less attention than the health of persons in any other age group. After the trials and tribulations of infancy are safely passed, parents are prone to forget the health of the child, unless

the child suffers an injury or becomes acutely ill. Too little attention is given *to keep the well child well.* In spite of the fact that proper health supervision would have prevented many of the ailments of childhood and even of adulthood, this lack of interest concerning the child's health continues until parents are jarred into realization by the health requirements of the school authorities.

Review of causes for rejection of men examined under the Selective Service program reveals that many of the defects which lead to rejection could have been prevented, or corrected, if the persons had received proper health supervision during childhood. Many rejections were due to dental defects which could have been prevented by proper nutrition and dental care. Proper health supervision could have revealed the need for medical care of conditions which lead to defects of the lungs, the heart, and the muscular and skeletal structures. Analysis of the Selective Service records and reports of the National Youth Administration shows that nearly half of the persons examined never received a medical examination of any kind during their life.

It cannot be said that there is willful neglect of the health of the pre-school child on the part of the parent. Neglect is due to lack of knowledge concerning the importance of periodical health examination and preventive measures. If children are not taken to the physician, the physician has no opportunity to discover defects or to educate parents regarding protection of the child's health.

The basic purpose of the child-health conference is *to keep the well child well.* This is accomplished by education of parents in better methods of child care and management, including proper immunization at an early age, by the early discovery of defects, and by guiding parents to provide for care and correction of defects.

Child-health conferences are usually organized by some community organizations, such as a sorority, or service club, in cooperation with public health nurses and the local medical society. The community organization may provide for the operating cost and for fees for physicians. Members of the organization may serve as volunteer assistants. The public health nurse and physician cooperate in conducting the conference. Conferences have been operating in the larger cities of the state for many years, but it is not until recently that conferences have been established in rural areas and smaller towns.

The need for child-health conferences is probably greatest in rural areas where there are fewer facilities for health supervision and less opportunity for group education, and in this time of war when physicians are being withdrawn from communities for service with the armed forces, the need for maintaining good health through group health supervision of children is greatly increased.

Citizens, community organizations, public health nurses, physicians, and health officers are urged to foster and assist in the establishment of child-health conferences.

ONE COUNTY'S EXPERIENCE WITH THE D. P. W.

State medicine—or a generous sample of it—has come to Indiana via the Department of Public Welfare. The D. P. W. has had in operation, since January first, a comprehensive medical care program which conforms to our definition of state medicine: medical care financed by public funds and administered by the state.

It is natural that physicians who are trained in scientific reasoning processes should make every attempt to be objective in their study of the structure and progress of such a program, but the present state of affairs with the D. P. W. seems to have made it very difficult for most of our colleagues in Lake County to avoid subjective emotional reactions.

Some of our fellow practitioners are amused. We found no obvious reason for amusement in the D. P. W. medical care plan, but a little research reminded us that uproarious laughter is indicated, for students of aesthetics recognize legitimate humor in the fantastic, the incongruous, and the ridiculous. These practitioners who find the program ludicrous point to the fact that they spent many hours digesting the complicated instructions, the many forms and procedures, only to find them changed from week to week by new and complicating decisions of the Attorney General and the State Board of Accounts. At the outset, for example, it was understood that the D. P. W. would compensate the physician for his labor. After several weeks of operation it was determined by the Attorney General that this practice, under certain conditions too complicated to describe here, is illegal. The opinion requires that in some cases the physician must trust to luck for his fee, the funds for which will be given by the D. P. W. to the patient. Just which patients are paid for and which are paid by the D. P. W. can be determined by the physician by some method which has not yet been determined by the Attorney General, which doesn't make much difference anyway because it will probably be changed by the State Board of Accounts. By now you probably begin to recognize the humor in the situation.

At the outset the D. P. W. was to pay for the medical care of the mother, father, and "other eligible relatives" of dependent children. Now the State Board of Accounts has ruled that these relatives are the responsibility of the various and sundry township trustees, whose budgets were set up long ago without anticipation of this additional burden. Funny, isn't it?

And then there is the paper work: "It takes a half hour," one doctor says, "to fill out the forms and make the 'phone calls in order to be paid for a five-minute office call." Another describes his pockets as bulging with forms when he makes hospi-

tal rounds and house calls. These include, of necessity, the following: (1) pad of his own prescriptions; (2) pad of township trustee's receipt forms, to be executed in triplicate; (3) pad of D. P. W. prescription forms, to be executed in duplicate; (4) pad of D. P. W. receipt forms, to be executed in triplicate; and (5) pad of D. P. W. "Referral forms," to be executed in triplicate. Add to this the doctor's notebook, pen, pencil, watch, a couple of thermometers, tongue depressors, stethoscope, a little odd change, and an I. S. M. A. membership card, and you have a well-loaded doctor. "D. P. W.," we hear, has become the symbol for "Damn'd Paper Work." Amusing, don't you think?

Our own County Department of Public Welfare and its Board have been most cooperative and aren't any more enthusiastic about the whole mess than we are. We have an idea that they aren't any more amused than we are, and that their subjective emotional reaction, like ours, is one of some anger and complete disgust.

Editorial Notes

Indianapolis "nursing homes" are being investigated these days because of some disclosures that were almost unbelievable. Welfare agencies are presumed to be manned with trained investigators and should see to it that such practices as have been carried on for years be immediately halted.

The St. Joseph County Medical Society continues its good work in broadcasting medical news over the radio, the latest one coming to our attention being advice on what to do about burns. We are told that these weekly chats are looked forward to by a large number of listeners.

Chest x-rays for more than 2,500 public and parochial high school pupils in Indianapolis have been made, under the direction of the Marion County Tuberculosis Association. Christmas Seal funds provided most of the funds for this purpose. Dr. E. O. Asher, president of the association, announced that the findings in this series of x-rays would soon be made public, and that parents would be officially notified of all positive cases.

The new treatment for poliomyelitis, developed by Sister Elizabeth Kenny, of Minneapolis, is now being used in the Riley Hospital, a nurse from that institution having recently returned from Minneapolis where she took the complete course. In the new treatment splints and casts are not used, but the muscular spasms are controlled by hot packs. The treatment seems to be somewhat intricate, requiring a special training on the part of the operators, and the results at Riley will be watched with unusual interest.

A news note is to the effect that some *seventeen tons* of sugar had been found cached in a barn, just west of Chicago, and it was strongly suspected that the ultimate end of this huge pile of sugar would end up as bootleg alcohol. As is usual in such cases, there is much to-do as to what to do with the sugar. We could settle that question in less than a minute. In these times, when there is so much being said about a sugar shortage and the rationing of that necessary product, our plan would be to take over the commodity and distribute it in the Army camps. Seventeen tons of sugar will sweeten a lot of coffee and other food.

Frank M. Gastineau received a merited honor recently when he was officially named as head of the Department of Dermatology and Syphilology at the Indiana University Medical School. He long has been active in medical education, and in his special field is recognized as one of the leaders. Both Dr. Gastineau and the medical school are to be congratulated upon the appointment.

Information reaches us to the effect that there are a few Indiana communities in which a definite workable Civilian Defense plan has not been worked out. If true, this is a regrettable thing. No one can foretell what may happen in any section of the country, and well-planned defense is a vital necessity everywhere. County society officers are urged to look into this, and if complete plans are not already made, they should see to it that this is done immediately.

The Indiana State Board of Medical Registration and Examination recently revoked the license of Madge Louise Stephens, of Terre Haute, one of the principal charges being that she had used the "etherator," a device made notorious by one Hiel Crum of Indianapolis, a drugless practitioner. Dr. Stephens graduated from the Medical College of Indiana in 1905 and had practiced for many years in Terre Haute. This is another of the numerous cases prosecuted by the Indianapolis Better Business Bureau.

Some of our smaller county medical groups are unable to maintain a blood bank, hence, various substitutes are being arranged. A notable instance is that of the Noble County physicians, who have arranged a blood-typing program. The employes of a local concern have been typed, and it is planned to extend the experiment to other groups. This will result in time-saving, in the event any member of these groups should be deemed in need of a blood transfusion in the future. The plan recommends itself to other small communities where a complete blood bank service cannot be maintained.

Pittsburgh Civilian Defense medical groups are now locally known as "mercy teams," which seems a very pat title for these groups. It is a name easily remembered and soon should become a by-word in that city.

Those in charge of the Lake County blood bank at Gary Mercy Hospital have announced that women predominate as blood donors in the ratio of five to one. Dr. Edward Shalgos, pathologist in charge, intimates that Lake County men are of the "sissy" type!

Doctors can be of great assistance in the "salvaging campaign" now being carried on throughout the country, by gathering up all their old discarded instruments and contributing them to the pool. For the most part these instruments are made from a high quality of steel and scrap steel, along with other scrap metals, which is one of the most needed things right now. As a matter of further interest, many of these instruments bear the imprint, "made in Japan." A good many years ago the country was flooded with Japan-made instruments, and it would be quite a gesture to return these to that country with our best compliments — in the form of war materiels, of course.

A first-year medical student contacted us recently with a poser; wanted to know how he was going to continue his medical studies if the course was a continuous one. He stated that last summer vacation, for example, he had earned some $500, working in the local steel mills, which sum was quite a help financially. We note the recent interview in which Dean Gatch is quoted on the subject, stating that approximately 50 per cent of Indiana University Medical School students depended on "vacation money," and suggested that a student-loan fund be planned. The *Indianapolis News* opines that these young men might well be enlisted in the Army or Navy right now, which would, of course, solve the problem.

During the sessions of the recent meeting of The Congress on Industrial Health, a group of physicians, each considered somewhat of an authority in his field, took occasion to "debunk the vitamins." Now we are not subscribing to any opinion that vitamins have no place in modern therapy —far from it—but we believe that vitamins are grossly misused—it is overdone. We again resort to the observation that if food manufacturers will go back to the "old days," when all foods came to us with their natural vitamins intact rather than "processed and purified" to the extent that they are practically vitaminless, and in many cases have lost their full savor, then there would be less need for the prescribing of vitamins on a wholesale scale.

Notwithstanding the publicity given the matter by the press of the country, there still are those who believe that physicians are being highly paid for draft examinations. In a southern Indiana city a declaration was made to the effect that doctors were "coining money" as a result of these examinations, one comment going so far as to state that each examining physician was allowed fifteen dollars per case. We had thought that it was generally known that throughout the entire country this service was rendered without fee of any kind.

For some years past certain sections of Indiana have been visited, along "sugar makin'" time by peddlers of alleged maple syrup. Not too long ago one of our local colleagues was thus duped, despite the fact that we insisted the product offered was not the real thing and was very likely a brown sugar concoction flavored with hickory bark. We spent too many years in the Wild Cat sugar camps to be fooled about this thing. Down in southern Indiana, Old John Law caught up with two of these chaps who were peddling the fraudulent stuff, with the result that each of the men received a fine of $250 and costs, and for the nonce are working out said penalties at the Penal Farm.

It will be interesting to note the finale of some of the antics of Georgia's Governor Talmadge. From press reports it would seem that he is having "University troubles," it being claimed that he seeks political control of that school. The medical school of that institution has been taken from the approved list, much to the displeasure of the Governor, who now wants the state legislature to bar graduates of medical schools from other states. Such a plan is utterly silly, of course, but indicates to what lengths a politician may go. We wonder how he will react to the withdrawal of recognition of the University School of Law, announcement of which recently was made by Dean Gavit, of the Indiana University School of Law!

Fast on the heels of the early closing of the gas service stations comes an announcement from the dean of a school of pharmacy, advocating earlier closing hours for druggists. Several reasons are given in making the suggestion, chief of which is a shortage of registered pharmacists, which promises to become acute. The manager of an Indiana chain drug store recently remarked that for three months he had been trying to get additional pharmacists for a local store, without success. There is, of course, no rhyme nor reason in drug stores remaining open so many hours. Only a few years ago retail business in general thought it necessary to open at six in the morning and close late at night. Now they find they get along very nicely with a nine-thirty A.M. opening, closing at five-thirty P.M. The American people rapidly accustom themselves to such changes, as they would do were the druggists to cut down on their business hours.

Doctor Edgar F. Kiser has asked THE JOURNAL to make clear the present status of the Association's historian. When Doctor Kiser was elected to that position, he informed Mr. Hendricks that it would be practical to accept it only if funds were available for a part-time secretary, inasmuch as the work would be worth while only if it were done systematically by someone with abundant time. Since the present military situation makes it impossible to allot funds for purposes not absolutely necessary, Doctor Kiser expects to contribute occasional articles of medico-historical interest and which do not directly concern themselves with medicine in Indiana. It is hoped that eventually the office of historian can function in such a way as to paint a satisfactory picture of the development of medicine in our Hoosier state.

The following editorial comment regarding "The Doctor in Wartime" appeared in the *Terre Haute Advocate* of March twentieth:

> In peacetime a doctor's position in the community is very important; in wartime, it is doubly so. Unfortunately, a doctor's life span is much shorter than other men.
>
> In fact, according to the Journal of the American Medical Association, heart disease kills 40 per cent of America's doctors.
>
> There are a number of reasons why doctors die early in life. Probably the most inclusive explanation is their irregular eating and sleeping habits. Another thing, it is a terrible strain to have the lives of other human beings depending on their skill and care.
>
> Doctors must be made to realize their one importance in the victory effort of our country. They must take care of themselves, as well as others. Doctors are one of the most important groups of defense workers.

Again we are reminded of the twenty thousand doctors who said, "Luckies are kind to your throat!" Every little while members of the medical profession receive inquiries regarding their preference for various proprietary and other articles of common use, and too often these same members of the medical profession respond to these inquiries, which information is, of course, used with advertisements of these various products. The most recent inquiry to come to our attention was an inquiry by a prominent throw-away magazine as to the brands of soaps recommended, particularly the soaps advised for bathing babies. We do not understand why any physician would answer such a query, since it is so patent that it is a cheap method of furthering advertising in the magazine mentioned. If members of the medical profession wish to comment on various advertised products, we would suggest that they limit their comments to the advertisements that appear in our own medical journal.

Tom Hendricks has been commuting from Indianapolis to Washington during the past four months, serving there in the capacity of advisor to the Procurement and Assignment Service. Recentiy he was given a regular appointment with the title of "consultant." He has spent about half his time in Washington during this period, and it is probable that he will be so engaged for the next several months. During his absence from the headquarters office, the assistant executive secretary, Miss Kribs, carries on the work of the association quite expeditionsly.

Robert P. Patterson, Undersecretary of War, in a letter to the American Medical Association, states that there is no reason whatever for changing the plans of holding the annual convention in Atlantic City. It is true that there is a partial blackout in the boardwalk section, but even that should not interfere with convention plans. So, get all set for the big event, June 8-12. And this again reminds us of our own convention in French Lick, come next September. There will be no blackouts in the foothills of the Cumberlands; Tom Taggart has specifically promised that he will see to that. We also are advised that Brown's will evade the blackout problem, so nothing remains to hinder our having our usual bang-up meeting. Someone did suggest that it might be well to "save rubber" by changing the convention point to Indianapolis, but as a matter of fact the mileage, per capita, would be equally great. Anyhow, medical conventions are not pleasure jaunts, hence there can be no just criticism of doctors driving their cars to a medical convention.

THE JOURNAL for April carried a note about "Bond Sunday," set for April twelfth, and advising all physicians to go to their regular polling places and register their willingness to assist in the bond program for the duration. Our information regarding the plan had been received from official sources, but the plan has been changed. Instead of going to your polling place to register, you will be called upon at your home. But no matter the plan, the big thing is to buy bonds—regularly if you can, whenever you can, but buy bonds! Keep in mind that bonds buy bullets and bombs, the things most needed these days. For some time we have quietly objected to the term "Defense Bonds"; we felt there was too much Defense talk, too little War talk; thought these Bonds should be called "War Bonds." Comes now a bit of pre-release information that this probably will be done soon. Buying bonds regularly gets to be a habit; we've been trying it since the first of the year and have come to look forward to the weekly call at the bond desk in our bank to pick up the little "E" bond, and, as we said last month, one has a better feeling of security after such purchases. Get the bond habit—you will enjoy it.

The Travelers Insurance Company recently issued their 1942 number of the "Travelers Book of Street and Highway Accident Data," this number being termed "The Wreckord." The booklet contains much information concerning the more than 40,000 Americans killed as a result of automotive accidents in 1941 and of the one and one-half million persons injured in these cases, plus the damages to more than a million cars, some fifty thousand of these damaged beyond repair. With the gas and tire restrictions, together with the limitation placed upon the sales of cars, it is expected that the current year will show a marked decrease in the record. However, there are some new factors that may bring about accidents, factors that had not heretofore been considered. Our cars are growing older, our tires becoming worn; retreads are but a crutch, in that drivers of retreaded tires are cautioned to drive at not more than thirty-five miles per hour. And, so we now are advised, retreads will give not more than a five thousand-mile service. Hence, even with all these restrictions and with fewer cars on our streets and highways, these additional hazards will claim their share of victims. This is no time to slow down on our teachings of safety.

The January number of the *Hawaii Medical Journal*, long delayed because of "Pearl Harbor," finally has reached us. This journal was but recently established, the current number being Volume 1, Number 3. As we had anticipated, the entire number is devoted to the happening of December seventh, presenting a War Medicine picture such as we never before have seen. Only three days before the disaster Dr. John J. Moorhead, of New York, had arrived in Honolulu to conduct an intensive postgraduate course in the handling of war injuries, and during these three days had addressed some three hundred physicians in all-day meetings. On the fatal Sunday the group had again assembled, only to be called to actual surgical service, Dr. Moorhead taking his service assignments along with them. Much may be learned from a reading of this number, but we were especially interested in an article on the Blood and Plasma Bank, by Dr. Forrest J. Pinkerton, a former Hoosier physician. Some two hundred flasks of plasma had been stored "against that day," but the supply soon was exhausted. A call for donors was broadcast over local stations, resulting in volunteers at the rate of fifty per hour, day and night, over a period of two weeks. Dr. Pinkerton reports the number of lives saved by the use of blood plasma as unheard of, and is proud that his city was the first to operate a blood bank in time of actual war. The treatment of various types of war wounds is well covered, including an article on "Mental Hygiene in Wartime, in Hawaii." The journal is well worth one's time spent in its perusal, a copy of same being available at the library of THE JOURNAL.

Hoosier fisher-folk, especially those who are wont to try their skill in waters of the southern part of the state, are advised that another favorite "spot" is to be closed to them because of the war. Fishing immediately above and below a dam across an Indiana river is proscribed for the duration. This dam furnishes power for a large electrical generating plant, and the War Department has decreed that approach to this dam will be denied any and all persons. This rule, following that of banning all fishing on an artificial lake created a few years ago by the State Conservation Department, takes from Indiana fishermen two desirable locations. But, we are at war and the closing of such waters is but another instance of the things we must do and must not do in war time.

In *Health News* for March sixteenth, a publication of the New York State Department of Health, appeared an article which is well worth repeating:

PRECAUTIONS AGAINST SERUM REACTIONS

During the past few years, several reports of immediate reactions following the administration of horse serum products have come to the attention of the Division of Laboratories and Research. A few have proved fatal.

In a number of instances, investigation disclosed that no test for sensitivity to serum was performed by the physician, or that the manner of testing was not in accordance with the suggestions given in the circulars accompanying state preparations. The increased use of antitoxins and serums, horse or rabbit, for the treatment or prophylaxis of disease makes it extremely important that physicians exercise all possible precautions to avoid serum reactions due to inherent or developed sensitivity even though statistics show that serious reactions occur in an extremely small percentage of cases. Severe and even fatal reactions may occur following the injection of very small amounts of antitoxins or serums in highly sensitive individuals.

The two principal safeguards are careful inquiry as to a history of allergic manifestations or previous injections of serum and a preliminary test for sensitivity to serum of the species that is to be injected. Although a negative sensitivity test is not an infallible index of lack of sensitivity, or a positive one of the probability of a reaction, it does in the latter case constitute a warning to proceed with the utmost caution if serum is to be administered. In obtaining information as to previous injections of horse serum products, the possible sensitizing effects of diphtheria toxin-antitoxin mixture, widely used in New York State in the past, should not be overlooked. Severe and alarming reactions, although rare, may follow intracutaneous injections of small amounts of serum. Therefore, material used for intracutaneous tests of sensitivity should, as advised in all circulars accompanying state preparations, be diluted 1:100 in sterile physiologic salt solution. When serum treatment is repeated after an interval of more than three days, it is especially important to perform sensitivity tests and to proceed with extreme caution. The danger of serious reaction is considerable and fatal results have been reported, even after attempted desensitization. A syringe containing 1.0 ml. of freshly prepared epinephrine (adrenalin) solution, 1:1000 should be kept at hand for immediate use.

The above article is particularly applicable at this time when a state-wide immunization program is being conducted. A bulletin prepared by the Children's Bureau of the United States Department of Labor concerning recommendations to public health officials and practicing physicians on the subject "Diphtheria Immunization and Smallpox Vaccination" may be obtained by writing to The Indiana State Board of Health.

The *Indianapolis Star* directs attention to the necessity of being on the alert for a hyperactivity on the part of charlatans and irregulars, due to so many medical men being called to the armed services. We recall the experiences during World War I, when these groups made quite a play for business, citing the fact that regular medical care was not available in the same degree as in normal times.

The *New York Times*, in an editorial comment on Conservation of Vision, remarked, "Some 8,000 persons in this country have lost both eyes and 80,000 one eye in industrial accidents." It further stated that about one-sixth of the blind population of America have been blinded by gonorrhea and syphilis. These figures, while astounding, reflect but the truth, and the sorry element is that in most of the cases the blindness was preventable. But in referring to the industrial cases it seems that no matter how much industry does to educate its employes along these lines, there remains the "human element." Just so many employes will continue to be negligent; they receive an eye injury and do not report it until the eye has become seriously damaged. We need, too, a more vivid propaganda regarding poor vision in early life. It is estimated that about one-fourth of the students in American colleges are seriously handicapped by visual defects, many of which could have been remedied in early life, long before they reached the campus.

The following is an abstract from information submitted by Charles Griffith, medical director of the United States Veterans' Administration, in connection with the VICTORY BOOK CAMPAIGN. (Incidentally, that reminds us that we might look about our libraries for contributions!):

If books could talk, the librarians of the Veterans' Administration, whose libraries fell heir to many of the volumes collected and purchased by the American Library Association during World War I, would hear many tales more unusual and interesting than those found between the covers. This is particularly noted now that the books are being collected all over the country in the Victory Book Campaign. Much of the work of the hospital libraries of the Veterans' Administration has been in the nature of adult education, even while adhering faithfully to its tenet of therapy first. These two elements are not infrequently compatible and in catering to present reading needs hospital libraries are noticing an appreciable difference in the quality of the literature requested by their patrons. A hospital librarian of an eastern Veterans' Administration Facility reports: "We have had several young patients in the hospital who are enlisted in our present Army. It is interesting to note the difference in their selection of reading material as compared with that of the veterans of the first World War. These younger men request technical books and magazines on electricity, engineering, mathematics, etc. They have discovered the gaps in their formal education and are turning to the libraries to supply the material for filling these gaps."

Many of the fathers of the men in the new Army acquired the library habit during their hospitalization in Veterans' Administrative Facilities, and librarians who have provided library service for the older men now recall with some gratification the material they supplied these fathers and the reading lists made for them and for the sons at home.

ABSTRACT

CONQUERING OF GAS GANGRENE IS INDICATED IN TWO REPORTS

Two reports indicating that gas gangrene, one of the deadly foes of the wounded, may be conquered, are contained in the current issue of *War Medicine*, published by the American Medical Association, Chicago, in cooperation with the Division of Medical Sciences of the National Research Council.

Sarah E. Stewart, Ph.D., Bethesda, Md., announces the development of a toxoid that has proved to be effective in immunizing guinea pigs against the most common of the three types of organisms generally involved in gas gangrene.

Sulfanilamide or one of its derivatives has been found to successfully control experimental gas gangrene in guinea pigs, G. B. Reed, Ph.D., and J. H. Orr, M.D., Kingston, Ont., report in another paper in the same issue of *War Medicine*.

"Active immunization of man against infection with bacteria of the gas gangrene group has been given little consideration," Dr. Stewart points out in the introduction to her report. "In view of the marked progress which has been made in immunization against diphtheria and tetanus by use of their respective toxoids, it seems reasonable to believe that success could be attained against gas gangrene."

Toxoid is the toxin or poisonous substance secreted by an organism, the toxicity of which has been destroyed but which is still capable of inciting the formation of antibodies.

Dr. Stewart says that "During the first World War, it was found that in the different phases of the conflict the incidence of gas gangrene varied greatly in the wounded. The highest figures were always observed at the time of active operation, chiefly at the beginning of the war, when the wounded were not collected with the usual rapidity and when treatment was necessarily delayed. Since the gas gangrene anaerobes grow rapidly, death may ensue within a few hours of injury. It is essential, therefore, if immunity to this type of infection is to be present following injury, that it be built up prior to the time of injury. . . ."

Dr. Stewart developed a Cl. perfringens toxoid which was found when injected into guinea pigs to produce an immunity against many times the minimum lethal dose of a culture of this bacteria.

Drs. Reed and Orr explain that in their investigation of the efficacy of sulfanilamide or its derivatives in relationship to gas gangrene, "the primary objective in undertaking this work was not to find a cure for gas gangrene but to devise a simple method of retarding the development of this infection until such time as a wounded man could be subjected to the well recognized surgical or medical procedures.

"The results appear to demonstrate that sulfanilamide and its derivatives, especially sulfathiazole, introduced early into infected wounds have a marked retarding effect. . . ."

President's Page

CONFIRMATORY

I am writing this on April first, All Fools Day. one that for many years I have considered "*My Day*." If accepted by the Editorial Board, this page will appear in the May issue and should be devoted to the problems of immunization. But since the President, the Governor and all the Mayors will have issued proclamations about it, I am certain that only three persons would ever read it: Doctor Mettel, as part of his job to promote the child-health program; Miss Rokke, because she is paid to read all THE JOURNAL manuscripts; and Doctor Shanklin, who will read it to see that I haven't put anything over on Miss Rokke.

I have a postal this morning which states in quotation marks, "Psychologists commonly believe that the degree to which a man can use his mother tongue is, perhaps, the best test we have of his real intellectual ability"—signed A. E. Wiggam. *Who is he? And is it? Is this a brickbat or a boquet?* Intellectual ability without two other qualities may be as grave a liability as it is a valuable asset. These necessary attributes are, *the proper use of one's ability to serve his fellows and to secure a measure of happiness in doing so. The most brilliant man in my class was cleaning cuspidors in saloons five years after he had finished his interne service at the Cook County hospital.* Another equally brilliant fellow graduated from the Ohio Medical College, taking every prize, save one, that was offered by the faculty. Years later I got him a job as night watchman in a local factory. He worked there for nearly two years, then quit, and I haven't heard of him since. "B" had a photographic memory, and when called upon to recite he made the rest of us seem like kindergarten students. "J," in addition to his medical knowledge, was cultured in literature and was probably the best Shakespearean student I have ever known. When I knew him as a country school teacher in Randolph County before he studied medicine, his knowledge of psychology encompassed every book he could buy on the subject. After engaging in practice he practically starved for three years *because he could not use what he knew.* He became a street car conductor in St. Louis for the next twelve years. His wife died, and he went to the West Coast for three years doing various odd jobs to make a living. He bummed his way back from there and one night he came in to my office asking me to help him get a factory job of some kind. He did not smoke, drink nor dissipate in any manner that I knew of. He came in to see me three times before he went to work, but never after he started working. His conversation was as brilliant as when I first knew him twenty years previously. Hans Christian Andersen has said, "Every man's life is a fairy-tale written by God's fingers." *I sometimes wonder if this is true.* To me Omar Khá-yám's quatrain expresses our own responsibility when he says:

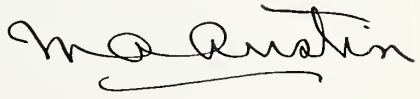
> "I doubt whether those, who through every clime
> Have wandered and sought, in peace and in strife,
> For gold and for treasures, have ever found time
> *To study the genuine value of life.*"

But one of his other verses has worried me a lot more and caused me to cease and desist my scribbling for a time. It says,

> "The moving finger writes, and having writ
> Moves on, Nor all your piety or wit
> Shall lure it back to cancel half a line,
> Nor all your tears wash out a word of it."

Then one of my friends may come in and tell me a funny story, and my mood is so changed that I find myself quoting things like these: "Do right and fear no man; Don't write and fear no woman"; or this one, "Say it with flowers or say it with drink; But however you say it, don't say it with ink."

And so during this first week in May, I shall sincerely hope that all the doctors will advise mothers to tell their children a nice bedtime story about the good doctor who is going to immunize them, otherwise this page will have had no reason for publication.

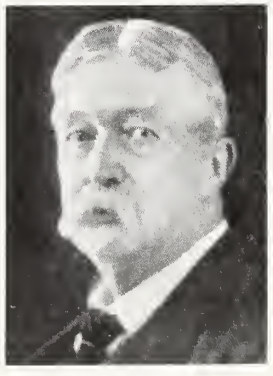


DOCTOR, SOLDIER AND BIBLIOPHILE HONORED

SYDNEY V. KIBBY, Lieutenant Colonel, Medical Corps*
FORT BENJAMIN HARRISON, INDIANA

Three great institutions stand as memorials to the life and work of Colonel John Shaw Billings: The Surgeon General's Library and its Index Catalogue in Washington, D.C., the Johns Hopkins Hospital in Baltimore, Maryland, and the New York Public Library in the nation's metropolis. Any one of these would represent a credible achievement in the life of a man, even though he be above the average in ability. Added to this is the distinction of having rendered distinguished service to his country in a great war. He also proved himself a surgeon of ability, a pioneer scientist laying the foundations, since developed by others, for research in insect-borne diseases, and a writer and speaker on medical subjects at a time when the medical profession was sadly lacking in such guidance.

John Shaw Billings was born April 12, 1838, in Cotton Township, Switzerland County, Indiana. Through his mother he was a descendant of John Howland, a passenger on the *Mayflower* in 1620, and through his father of New England Puritan and of Northamptonshire English origin. The family had a distinguished record of service to their king and country.



Colonel Billings

His first acquaintance with literature developed at an early age — through *The Bible*, *Robinson Crusoe*, *The Deerslayer*, *The Pathfinder*, *The Pilgrims Progress* and *Plutarch's Lives*. Later, coming across a book with a number of Latin quotations in it, he decided, in order to understand them, to study Latin. This he did with the help of a neighboring clergyman. Desiring to go to college, he made a bargain with his father to forego, in favor of his sister, his expectation of any inheritance if his father would help him obtain a college education.

He received his B.A. degree at Miami University in 1857, graduating second in his class and delivering the Latin salutatory oration. Desiring to study medicine, he matriculated in the Medical College of Ohio in 1858, and supported himself by tutoring and taking care of the dissecting rooms of the college. During one winter he kept his expenses down to seventy-five cents a week.

During 1858-59 Billings was an intern at St. Johns Hospital and during 1859-60 at the Commercial Hospital of Cincinnati. At this time he came in contact with Sister Anthony (O'Connell), with whom he continued a lifelong friendship.

His graduation thesis was on "The Surgical Treatment of Epilepsy," in the preparation of which he realized the chaotic state of medical literature and the need of proper cataloguing of the 100,000 volumes of medical books and journals then in existence so as to make them easily available to the medical student and the worker.

When the Civil War broke out, Doctor Billings, then a demonstrator of anatomy in his Alma Mater, offered himself and his services to his country as a medical officer, passing first on the list of candidates in an examination that lasted three days. He was commissioned a First Lieutenant and Assistant Surgeon on April 16, 1862. It is said that on the first day the examiners, noticing that he was from the Middle West, thought that they might pass him at the bottom of the list; on the second day they thought that he might pass about the middle; on the third day they decided to pass him at the top.

Lieutenant Billings was first assigned to the Cliffburne Hospital just outside of Washington, formerly the barracks of the Fifth United States Cavalry and "in an extremely filthy and dilapidated condition—no drainage, no sinks, and no water within a half mile."

Like the young medical officers of the Army of the present emergency, Doctor Billings married early in his Army career. His wife was Miss Kate M. Stevens, daughter of Honorable Lester L. Stevens of Rochester, New York, and Pontiac, Michigan, a prominent lawyer and member of Congress.

Lieutenant Billings was attached to the Army of the Potomac during the most severe fighting of the war, and was present during the battles of Chancellorsville, Gettysburg, Wilderness, Spotsylvania, North Anna, Cold Harbor and the siege of Petersburg.

From December 27, 1864, to August 20, 1895, Doctor Billings was on duty in the Surgeon General's Office. His report on the "Treatment of Diseases and Injuries in the Army of the Potomac during 1864" was made from pocketbook notes made in the field and is the principal source of our knowledge of the organization, administration and functioning of the Medical Corps during this period.

In 1875 his plans for the construction of the proposed Johns Hopkins Hospital were selected by the board of trustees, and for the next twenty-five years he was actively engaged in its construction and organization. His plan was that the hospital should contribute to charity, education and science:

* Special Services and Public Relations Officer, Billings General Hospital, Fort Benjamin Harrison, Indiana.

to charity by furnishing the best possible care and treatment of the sick; to science by advancing our knowledge of the causes, symptoms, pathology and methods of treatment; and to education by assisting in the training of physicians and nurses, and promoting discoveries in medicine. The most difficult thing in creating the hospital, according to Doctor Billings, was not the details of the building plan, heating or ventilation, but to find the proper persons to be the soul and motive power of the institution. The selection of Dr. William H. Welch as pathologist, Dr. William Osler in medicine, Dr. William D. Halstead in surgery, Dr. Howard A. Kelly in gynecology, Dr. William S. Thayer in internal medicine, Dr. Henry M. Thomas in neurology, and Dr. Whitridge Williams in obstetrics were in some cases the personal choice of Doctor Billings.

His work in The Surgeon General's Library and on the Index Catalogue, although not strictly speaking a scientific work, had the purpose of labor-saving in scientific procedure. It also made available to scientific students the fruits of other workers in the fields of science and medicine.

In 1887 The Army Medical Museum, which had been planned and administered by Doctor Billings, was opened and The Surgeon General's Library moved into it.

From 1880 until the end of his life he was interested in vital and medical statistics of the United States census, and became an authority on public hygiene.

In 1895 he retired from active duty in the Army and became professor of hygiene at the University of Pennsylvania, continuing as lecturer at the Johns Hopkins Hospital and wrote a history of surgery. He also completed the first volume of the Index Catalogue. Professor Da Costa, of Philadelphia, says of the latter work: "Doctor Billings has done the whole of literature and the whole of science a great good by this unselfish work, which has been of the kind that builds up literature and science by removing obstructions and saving time. This work will con tinue for generations, and generations will benefit."

On June 1, 1896, Doctor Billings resigned his professorship at the University of Pennsylvania to become superintendent-in-chief of the New York Public Library. This was his last great work and involved the consolidation of the Astor and Lenox Libraries and the Tilden Trust, securing the site on Fifth Avenue between Fortieth and Forty-second Streets, planning and erecting the splendid building, and organizing and administering the library.

Doctor Billings was operated upon twice for cancer of the lip, the second operation involving extensive dissection of the glands of the neck; and at an advanced age he survived a gallbladder operation. After each operation he returned to his work, which he carried on vigorously and successfully until the day of his death. Pneumonia followed a fourth operation for calculus, and he died on March 11, 1917.

His biographer, Dr. Fielding H. Garrison, M.D., estimates his position in the history of medicine as that of one who has done more to advance the status of American medicine than any other man of his time. The bibliography of his writings includes 171 articles and books.

In selecting *Billings* as the name of one of the new general hospitals of our present war effort and locating it at Fort Benjamin Harrison near Indianapolis, the War Department honors the state of Indiana through one of the most illustrious of her sons whom she has given to the service of the country, and pays rather belated tribute to a modest, forceful and faithful officer to whom the entire medical profession and the people generally are much indebted.

The ideals of Colonel Billings and the message which his life and efforts should convey to the young doctors now entering the service of their country are best exemplified by his own words addressed to a graduating class of the Army Medical School shortly before he died:

"As members of a great profession, as officers of the nation, as citizens of a great country, as men possessing special knowledge . . ., you are coming on the stage of action to share the burden and responsibility of the world's work and bring fresh blood and energy into the organism, to maintain and add to the dignity and honor of your country. Enter upon our heritage modestly but confidently. Be strong and of good courage. *Nos morituri salutamus.*"

ABSTRACT

A. M. A. JOURNAL REPORTS THE FORMATION OF AUSTRALIAN-AMERICAN ASSOCIATION

The formation of an Australian-American Association is reported in *The Journal of the American Medical Association* for February 7 by its regular Australian correspondent.

He says that the movement toward forming the Association "was initiated by a body of Australian citizens in the belief that the ideals and outlook on life of the peoples of America and Australia are so closely allied that it needs only a thorough knowledge of each other to achieve mutual respect and full understanding of each other's point of view; that the future peace, freedom and prosperity of the Pacific largely depend on the achievement of such an understanding and friendly regard between these two peoples, and that the close friendship of the vigorous democracies of the New World may well be the decisive factor in reestablishing the principles of freedom in a threatened civilization.

"The Australian-American Association has as its objects (1) to extend fellowship and hospitality to American visitors to our shores and to afford them facilities for obtaining an immediate knowledge of Australia, (2) to contribute to a better understanding by the Australian public of American affairs and point of view and (3) to attract in active membership citizens of both countries who will contribute to the furtherance of practical cooperation and mutual understanding."

WHAT WENT ON DURING WORLD WAR I

Items from THE JOURNAL of May, 1917

In the scientific section we find an article by Dr. George F. Keiper, Lafayette, "Why Belong to a Medical Society?" Dr. J. W. Shafer, also of Lafayette, discussed "Conservatism in Cesarean Section." Dr. Will Shimer, Indianapolis, wrote on the "Relation of Cow's Milk to Human Tuberculosis."

* * *

Editor Bulson talked about "Medical Preparedness," "Conservation of Food," "Group Insurance" and also had quite a bit to say about noises in hospitals. A most interesting editorial in this number is entitled "Garrulous Doctors' Wives"; Bulson really went to town on this one, detailing the mess a Hoosier physician got himself into because of the loquacity of his mate. Said doctor's trouble included a "beating up" on the part of the husband of the patient gossiped about.

* * *

Colorado and Tennessee had been added to the list of states prohibiting fee-splitting in any form.

* * *

Dr. J. Rilus Eastman, recently returned from service in a military hospital in Vienna, had an article in THE JOURNAL regarding his observations in Germany. He reported that Germany was not as hard pressed for food as was so generally supposed, and that the German people were optimistic regarding the outcome of the war.

* * *

Drugs and chemicals continued to soar in price, many of the essential variety having been taken off the market. Considerable complaint was being made about "bootlegging" of drugs.

* * *

Medical students were being officially advised not to enlist at this time, but to continue their studies.

* * *

Editor Bulson raved about the appointment of a Christian Scientist as health commissioner of Denver.

* * *

A plea was being made that medical students who were graduating two or three months ahead of the regular schedule be not penalized by the various state boards.

* * *

Seems that the "United Doctors," a group of frank charlatans infesting the state at that period, were again "on the loose," dropping in for a stay of two or three days in various Indiana cities. (Of recent years we have not had many of these itinerants, though Fort Wayne continues to be the headquarters of a "rectal specialist" itinerant.)

The vacation question was thoroughly discussed, it being the opinion of the editor that a physician, above all, needed a respite from his arduous tasks.

* * *

A. J. Banker, long-time surgeon at Columbus and one of the "wheel horses" in organized medicine of his time, had died at the age of seventy-one years.

* * *

Quite an epidemic of smallpox was reported in Indiana Harbor, now a part of East Chicago.

* * *

Fred M. Ruby had recently presented a paper before the Randolph County Society, discussing the "Bacteriology of the Tonsil."

* * *

Kosciusko County physicians had organized an Auxiliary Medical Defense Committee, with C. Norman Howard as chairman. Allen County physicians had organized a similar committee, with H. O. Bruggeman as its head.

* * *

C. A. Stayton and D. G. Hilldrup had resigned as attending physicians at the Village for Epileptics, to engage in general practice.

* * *

John H. Oliver, director of the newly-projected Lilly Base Hospital, was engaged in selecting the staff for same; twenty-three surgeons, two dentists, fifty graduate nurses, together with assistants of various sorts, the total complement being about two hundred fifty.

* * *

Dr. Charles R. Bird was planning to leave for Boston to take his place with the Harvard surgical unit overseas.

* * *

The leper victim recently discovered at Fort Branch had been placed under permanent quarantine, his wife and daughter having been detained with him.

* * *

Miles F. Porter, Sr., had been named as the Indiana head of the Department of the National Defense League.

* * *

Two new members had been appointed to the State Board of Health, John T. Hewitt, Terre Haute, and Hugh A. Cowing, Muncie.

* * *

Medical Boards were appointed throughout the country by the Surgeon General to relieve his office of many details; T. Victor Keene, Indianapolis, was named to serve for this area.

* * *

A large list of Indiana physicians was named as having been commissioned for service in the Medical Reserve Corps.

(This article is reprinted from the HAWAII MEDICAL JOURNAL, Volume I, Number 3, Page 139—Editor's Note.)

WAR CAME TO HAWAII

"And how did it find us?

"Providence could not have been kinder to the boys who had their baptism of fire on that morning of surprise, than by having in Honolulu Dr. John J. Moorhead, veteran of the last World War and authority on traumatic surgery.

"Only three days prior to the 7th, Dr. Moorhead arrived to give to the doctors of the islands an intensive postgraduate course in the handling of war injuries. And on the fateful Sunday morning a crowded hall of doctors awaited his lecture on burns. For three sessions he had drummed into a record audience of 300 civilian, Army and Navy doctors the several cardinal points of procedure in the handling of wounds. And they certainly were applied that day, Sunday the 7th, not alone by the Army and Navy surgeons but by the 20-odd civilian surgeons and physicians who all that day and night assisted their military colleagues in caring for the many casualties brought to the military hospital. No need for the surgeons to hesitate in the face of the ugly, extensive wounds that came into their hands. Dr. Moorhead had told them what to do, simply and with the authority of a man of experience. And he went as eagerly as did the civilian doctors when the call that interrupted and temporarily terminated the lectures, came from headquarters.

"And more important, Dr. Moorhead and his pupils had the keen satisfaction of seeing the results of their work. Only 11 cases of gas gangrene (all of which recovered) and 'not a teaspoonful of pus—not a serious infection' was what he reported weeks later, just before his departure. What greater reward could any physician ask!

"Said Dr. Moorhead in his farewell to the physicians on December 30th:

"'Honolulu has been the proving ground for the technique of handling war wounds. I shall recommend that this technique be adopted universally throughout the country.'

"And what he said further is also recorded, not with the idea of glorying in self-praise, but that it becomes a matter of record:

"'The United States of America owes you, the civilian doctors of Honolulu, a debt of gratitude for the work you did on December 7th, and I shall make it known in high places what you did here.'

"In inviting Dr. Moorhead to come to Hawaii, our Post-Graduate Committee by design had in mind to prepare the civilian doctors particularly against just such an incident as occurred, but it had no idea that the knowledge and guidance it sought would be so quickly applied. Every physician, Army, Navy and civilian, can be thankful to that committee for its forethought and its choice of the man.

"This story would not be complete, if attention were not directed to the swift and competent mobilization of the ambulance service and first aid units under the direction of Dr. H. L. Arnold, Sr., and Dr. Robert B. Faus, acting for the Honolulu County Medical Society's Preparedness Committee, and the work of the blood bank under the direction of Dr. F. J. Pinkerton and Dr. John Devereux. Within an hour 18 first aid units went into action, and the Preparedness Committee had 100 trucks rolling within an hour, some immediately, to the scene of combat at Hickam Field and Pearl Harbor for the transportation of casualties to the Army Hospital. Many comments were heard about their capable performance, and days later there was still great speculation as to who had dispatched them. Only 4 of the 18 first-aid stations took care of casualties, but all of them were manned and ready for action. One—at Lunalilo School—was actually bombed, but promptly rallied and re-established itself nearby.

"The meagre supply of 200 flasks of plasma in readiness was immediately dispatched to Army, Navy and civilian hospitals and a feverish activity was begun to augment that supply.

"Forever be it said for the civilian population of Honolulu, that it responded as one man to the needs of the day. It took some time for the transition to take place in the minds of all of us that this was not a maneuver, that the Japanese had actually arrived—an utterly inconceivable reality. It took some time to convince most of us that the smoke arising from Pearl Harbor and Hickam Field was not a burning cane field or a burning oil tank, or a bit of chemical realism added to routine maneuvers; and many of us watched and commented on the maneuvers and the puffs of smoke in the sky. Not one credited the first reports that it was an attack, but when the truth was brought home there was no hesitancy or panic. Radio orders and instructions were carefully followed out and orderliness reigned throughout.

"That word 'orderliness' cannot in honesty be applied to the weeks that followed in an attempt to get things organized. However, organizations have been shaken down finally and there is evidence of planning coming to the top."

☆☆☆☆☆☆☆☆☆☆☆☆☆☆

In our war effort, money is the weapon
with which weapons are made.
Arm America with Defense
Bonds and Stamps!

☆☆☆☆☆☆☆☆☆☆☆☆☆☆

SOME EARLY AMERICAN MEDICAL AUTHORS

EDGAR F. KISER, M.D.
INDIANAPOLIS

After time and experience have mellowed the enthusiasms of youth, a mature man is seldom given to hero worship. There is, however, one early American medical author for whom I must confess a deep and lasting admiration closely akin to adoration. This man is William Beaumont. With the possible exception of Daniel Drake, I know of no other of the early contributors to American medicine whose work was the result of prolonged, systematic, and scientific research. Beaumont's only publication, *Experiments and Observations on the Gastric Juice and The Physiology of Digestion*, is all the more remarkable if one recalls that the work was done in large part in the wilds of the upper Michigan peninsula, with only such apparatus as was available in a primitive army post. It is also worthy of mention that Beaumont was not the first to have had the opportunity for such an investigation as his. Jesse Myer, in his biography, points out that a dozen or more of Beaumont's medical predecessors had encountered gastric fistulae of such character as to have lent themselves to experimentation, but all had lacked the vision or the energy, or both, to study gastric digestion *in vivo*. Osler dramatically epitomizes Beaumont's undertaking in just seven words: "The man and the opportunity had met."

The story of Beaumont and Alexis St. Martin need not be retold in detail. Every one is familiar with the nature of St. Martin's wound, with the long weary months devoted by Beaumont to nursing his patient back to health, with the numerous and oft repeated experiments made under the most trying circumstances, which frequently necessitated chasing his drunken and often unwilling guinea pig through the wilds of Canada and the States.

Some of the earliest experiments were published in 1826, in the twenty-ninth number of the *Philadelphia Medical Reeorder*, and erroneously attributed to Dr. Joseph Lovell who was at the time Surgeon-general of the United States Army. Finally in 1833, after eight years of heartbreaking effort, there appeared from the press of F. T. Allen in Plattsburg, New York, the small brown volume which is dear to the heart of every collector. In his preface Beaumont says:

"I had opportunities for the examination of the interior of the stomach, and its secretions, which has never before been so fully offered to any one. This most important organ, its secretions and its operations, have been submitted to my observation in a very extraordinary manner, in a state of perfect health, and for years in succession. I have availed myself of the opportunity afforded by a concurrence of circumstances which probably can never again occur, with a zeal and persevcrance proceeding from motives which my conscience approves; and I now submit the result of my experiments to an enlightened public, who I doubt not will duly appreciate the truths discovered, and the confirmation of opinions which before rested on conjecture.

"I submit a body of facts which cannot be invalidated. My opinions may be doubted, denied, or approved, according as they conflict or agree with the opinions of each individual who may read them; but their worth will be best determined by the foundation on which they rest—the incontrovertible facts."

Beaumont initiated his investigations by determining the temperature of the stomach, and his first experiment, made on August 1, 1825, he describes as follows:

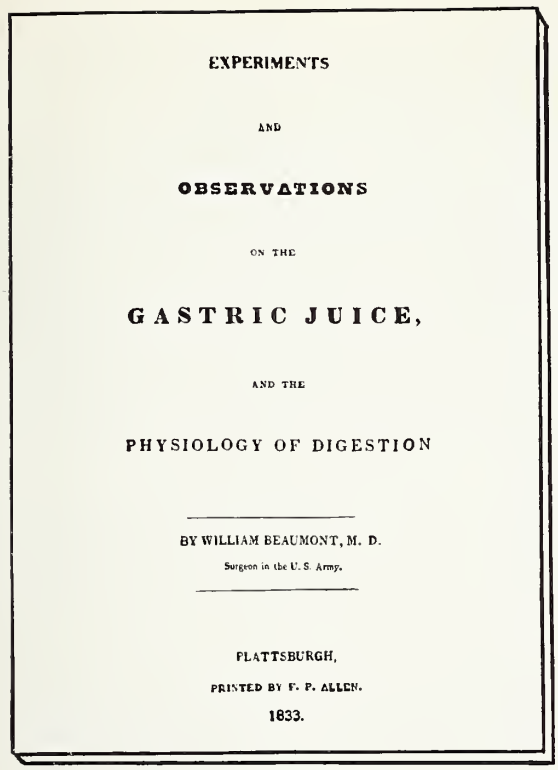
"At 12 o'clock, M., I introduced through the perforation, into the stomach, the following articles of diet, suspended by a silk string, and fastened at proper distances, so as to pass in without pain—viz.:—a piece of high seasoned a la mode beef; a piece of raw, salted, fat pork; a piece of raw, salted, lean beef; a piece of boiled, salted beef; a piece of stale bread; and a bunch of raw sliced cabbage; each piece weighing about two drachms; the lad continuing his usual employment about the house.

"At 1 o'clock, P.M., withdrew and examined them—found the cabbage and bread about half digested; the pieces of meat unchanged. Returned them into the stomach.

"At 2 o'clock, P.M., withdrew them again—found the cabbage, bread, pork, and boiled beef, all cleanly digested, and gone from the string; the other pieces of meat but very little affected. Returned them into the stomach again.



William Beaumont, M.D.



EXPERIMENTS

AND

OBSERVATIONS

ON THE

GASTRIC JUICE,

AND THE

PHYSIOLOGY OF DIGESTION

BY WILLIAM BEAUMONT, M. D.

Surgeon in the U. S. Army.

PLATTSBURGH,

PRINTED BY F. P. ALLEN.

1833.

Title page of the first edition.

"At 3 o'clock, P.M., examined again—found the a la mode beef partly digested: the raw beef was slightly macerated on the surface, but its general texture was firm and entire. The smell and taste of the fluids of the stomach were slightly rancid; and the boy complained of some pain and uneasiness at the breast. Returned them again.

"The lad complaining of considerable distress and uneasiness at the stomach, general debility and lassitude, with some pain in his head, I withdrew the string, and found the remaining portions of aliment nearly in the same condition as when last examined; the fluid more rancid and sharp. The boy still complaining, I did not return them any more."

Beaumont made some two hundred forty-five experiments in all, and from them drew fifty-one inferences—all but a very few of which are accepted as correct in the light of our present knowledge of the physiology of digestion. The book is written in splendid English and there are numerous references to authorities ranging from Hippocrates to many of Beaumont's contemporaries at home and abroad.

A second printing of the experiments was issued by Lilly, Wait and Company, of Boston, in 1834 and a second edition, edited by William Beaumont's cousin, Samuel Beaumont, in 1847. In the meantime, Sir Andrew Combe had published a reprint with copious notes of his own, in Edinburgh, in 1838. There is also a very rare German translation, only two copies of which are known to be in America.

William Beaumont has been signally honored by American physicians. A monument to his memory has been erected in Michigan on the site where he began his study of St. Martin; George Washington University in St. Louis, where he died, has a magnificent Beaumont room in its library; the University of Chicago has a splendid collection of Beaumont memorabilia; numerous famous physicians have made pilgrimages to his grave; Jesse Myer has immortalized him in a fine biography; Sir William Osler, Walter Steiner, Walter Cannon and many other eminent men have sung his praises in glowing words. The aspiring young research worker could seek inspiration in no more profitable way than by acquainting himself thoroughly with the life and work of William Beaumont.

UNDER THE CAPITOL DOME

SURVEY OF MENTAL PATIENTS

A report of the Central State Hospital for the fiscal year 1940-41, recently published, showed that the total number of all new admissions, including cases of general paralysis, who had a positive blood serology for syphilis, was 22.1 per cent.

Statistics based on the new admissions revealed that the prevalence of syphilis was considerably less among white patients than among Negroes. It was found that 18.9 per cent of all white admissions had a positive blood serology for syphilis, as compared with 47.4 per cent of the colored admissions.

More men showed positive blood serology for syphilis than women, the percentage for men being 25.7, and for women 19 per cent.

During the fiscal year general paralysis accounted for 16.1 per cent of the first admissions, and in addition 1.9 per cent of the cases were diagnosed as having psychosis with meningovascular syphilis, making a total of 18 per cent caused directly by syphilis, the report said.

Importance of malaria therapy service provided by the Central State Hospital to the community also was cited in the report which said, "The most important value of the malaria treatment lies in the prevention of general paralysis."

"State and private institutions, general hospitals, practicing physicians of the state of Indiana and also hospitals and physicians throughout the Middle West have made use of the opportunity

offered by us, and have brought their patients to the hospital for inoculation or had malaria blood shipped to them by mail," the report said. "During the year, 163 samples of citrated malaria blood were mailed to physicians and institutions, and three outside patients were brought to the hospital for inoculation.

"Since 1930, when this service was organized, 1,270 samples of malaria blood were shipped for inoculations of paretic patients who underwent malaria therapy outside of state institutions. Prior to the use of the malaria treatment, most of these patients would have been committed to state hospitals for final care, lasting from one to four years. Through this service the Central State Hospital is practicing mental hygiene, which is at once obvious and constitutes an immediate saving to the state of Indiana."

Hospital statistics showed the total population of insane patients on the institution's books at the end of the fiscal year as 2,214, including 161 on parole or otherwise absent. During the year a total of 431 new admissions were placed on the books (209 men and 222 women). Readmissions numbered 62 (24 men and 38 women) and transfers six (one man and five women). There were 189 deaths during the year (97 men and 92 women) in the institution, and no deaths occurred while on furlough.

Statistics covering patients discharged from the institution's books during the year showed: recovered, 31 (2 men and 29 women); improved, 156 (84 men and 72 women); unimproved, 20 (9 men and 11 women); transferred to other hospitals for mental diseases, 118 (1 man and 117 women); and transferred on furlough, 5 (all women).

Of the 431 new patients admitted during the year, 398 were native-born; 19 were foreign-born, and in 14 cases the nativity was unascertained.

A study of ages of the new admissions showed the largest group to be 70 years old or over; this group comprising 82 persons (38 men and 44 women). The second largest group comprised persons between 35 and 39 years of age (29 men and 21 women). Forty-two were between 40 and 44 years of age, and 41 between 55 and 59. Only 7 were between 15 and 19 years of age, and 16 were between 20 and 24 years.

MEDICAL BOARD CHANGES

Dr. W. C. Moore of Muncie, who had been serving as president of the Indiana State Board of Medical Registration and Examination, was chosen as secretary at a meeting Tuesday, April fourteenth, to succeed Dr. J. W. Bowers, of Muncie, who resigned recently. Doctor Bowers, now a Lieutenant Colonel in the United States Army Medical Corps, resigned because his duties at Fort Benjamin Harrison are too heavy to permit him to continue serving on the state board.

Dr. Hobart C. Ruddick, of Evansville, was elected to serve as president.

Governor Henry F. Schricker named Dr. Bowers' son, Dr. G. T. Bowers, also of Fort Wayne, to fill the vacancy on the board created by the elder Doctor Bowers' resignation. Doctor Bowers had served on the board for twenty-two years.

STATE BOARD EXAMINATION

Present indications are that between 130 and 140 graduates of medical schools will take the examination of the Indiana State Board of Medical Registration and Examination this spring. Approximately 105 graduates of the Indiana University School of Medicine and between 25 and 30 from schools outside this state are expected to be on hand. The examination will be conducted June 16, 17, and 18 in the Assembly Room of the Claypool Hotel. The entire medical board will be in charge.

"RADIOCLAST" PETITION HEARD

The petition of the Indianapolis Better Business Bureau to revoke the license of Mrs. Alma Cox of Crown Point, drugless physician, is pending before the State Board of Medical Registration and Examination. Mrs. Cox operated a machine called a "radioclast."

Following a hearing an agreement was reached whereby briefs will be filed by S. C. Kivett, attorney for Mrs. Cox, and by Toner M. Overley, manager of the Better Business Bureau. Meanwhile, Mrs. Cox agreed to discontinue use of the "radioclast" until the board reaches a decision on the revocation petition.

Inspector Robert L. Batts, head of the Radio Division of the Indianapolis Police Department, was the principal witness for Mr. Overley. He testfied that he spent eighty hours examining the machine and reached the conclusion that it was a "fake." Mr. Kivett indicated that a decision adverse to his client will be appealed to the courts.

PLAN TO ATTEND YOUR COUNCILOR DISTRICT MEETING

District	*Date and place*
1st	Evansville, May 28, 1942
2nd	Washington, June 2, 1942
3rd	New Albany, May 13, 1942
4th	Aurora, May 14, 1942
5th	Terre Haute, May 1, 1942
6th	Liberty, May 27, 1942
8th	Anderson, May 20, 1942
9th	Monticello, May 21, 1942
11th	Flora, May 20, 1942

REFERENCE AND TRAINING CHART

CHEMICAL WARFARE AGENTS

PREPARED BY OFFICE OF CIVILIAN DEFENSE

CLASS	NAMES AND SYMBOLS	FORM	ODOR	PHYSIOLOGICAL EFFECT	TACTICAL CLASS	PROTECTION	FIRST AID (After removal from gassed area)	PERSISTENCE	FIELD NEUTRALIZATION
VESICANTS	MUSTARD $S(CH_2CH_2)_2Cl_2$ DI CHLOROETHYL SULFIDE	LIQUID AND VAPOR	Garlic, Horseradish, Mustard	Delayed effect. Burns skin or membrane, inflammation respiratory tract leading to pneumonia. Eye irritation, conjunctivitis.			Undress, remove liquid mustard with protective ointment, bleach paste, or kerosene; bathe; wash eyes and nose with soda solution.	One day to one week. Longer if dry or cold.	Cover with unslaked lime and earth. 3% solution of Na_2SO_3.
VESICANTS	LEWISITE CHClCH-$AsCl_2$ CHLOROVINYL DICHLOROARSINE	LIQUID AND VAPOR	Geraniums	Burning or irritation of eyes, nasal passages, respiratory tract, skin. Arsenical poison.			Undress; remove liquid Lewisite with hydrogen peroxide, lye in glycerine, or kerosene; bathe; wash eyes and nose with soda. Rest—Doctor.	One day to one week. Longer if dry or cold.	Wash down with water. Cover with earth. Alcohol. NaOH spray.
VESICANTS	ETHYLDICHLORARSINE C_2H_5-$AsCl_2$	LIQUID AND VAPOR OR GAS	Slightly, like pepper in nose	Causes blisters, sores, paralysis of hands, vomiting. Severe on long exposure.			Undress; remove liquid with hydrogen peroxide lye in glycerine, or kerosene, bathe; wash eyes and nose with soda. Rest—Doctor.	One hour.	Cover with earth, caustic.
LUNG IRRITANTS	CHLORINE Cl_2	GAS	Highly Pungent	Lung irritant.			Remove from gassed area. Keep quiet and warm. Coffee as stimulant.	10 minutes.	Alkaline solution.
LUNG IRRITANTS	CHLORPICRIN CCl_3NO_2 NITROCHLOROFORM	GAS	Physpet, anise	Causes severe coughing, crying, vomiting.			Wash eyes, keep quiet and warm. Do not use bandages.	Open 6 hours. Woods 12 hours.	$NaSO_3$—Sodium sulfite in alcohol solution.
LUNG IRRITANTS	DIPHOSGENE ClCOOC-Cl_3 TRICHLOROMETHYL CHLOROFORMATE	GAS	Ensilage, Acrid	Causes coughing, breathing hurts, eyes water, toxic.			Keep quiet and warm. Give coffee as a stimulant.	30 minutes.	Alkali.
LUNG IRRITANTS	PHOSGENE $COCl_2$ CARBONYL CHLORIDE	GAS	Musty hay, Green corn	Irritation of lungs, occasional vomiting, tears in eyes, dazed feeling. Occasionally symptoms delayed. Later, collapse, heart failure.			Keep quiet and warm, bed rest. Coffee as a stimulant. Loosen clothing. No alcohol or cigarettes.	10 to 30 minutes.	Alkali.
LACRIMATORS	CLORACETOPHENONE C_6H_5CO-CH_2Cl	GAS	Apple Blossoms	Makes eyes smart. Shut tightly. Tears flow. Temporary.			Wash eyes with cold water or boric acid solution. Do not bandage. Face wind. For skin, sodium sulphite solution.	10 minutes.	Strong, hot solution of sodium carbonate.
LACRIMATORS	BROMBENZYLCYANIDE C_6H_5CH-BrCN	GAS	Sour fruit	Eyes smart, shut, tears flow. Effect lasts some time. Headache.			Wash eyes with boric acid. Do not bandage.	Several days. (Weeks in winter.)	Alcoholic sodium hydroxide spray.
STERNUTATORS	ADAMSITE $(C_6H_5)_2$-NHAsCl DIPHENYLAMINECHLORARSINE	GAS	Coal Smoke	Causes sneezing, sick depressed feeling, headache.			Keep quiet and warm. Loosen clothing. Reassure. Spray nose with neo-synephrin or sniff bleaching powder. Aspirin for headache.	10 minutes	Bleaching powder solution.
STERNUTATORS	DIPHENYLCHLORARSINE $(C_6H_5)_2$-AsCl	SMOKE	Shoe Polish	Causes sick feeling and headache.			Remove to pure air, keep quiet. Sniff chlorine from bleaching powder bottle	Summer 10 minutes.	Bleaching powder solution.
SMOKES	H C MIXTURE ZN + C_2Cl_6	SMOKE	Sharp Acrid	Harmless.		None needed.	Produces no effect requiring treatment.	While burning.	None needed.
SMOKES	SULPHUR TRIOXIDE SO_3 + SO_2NCl IN CHLOROSULFONIC ACID	SMOKE	Burning matches	Causes prickling of skin, flow of tears.			Wash with soda solution.	5 to 10 minutes.	Alkaline solution.
SMOKES	TITANIUMTETRACHLORIDE $TiCl_4$	SMOKE	Acrid	Harmless.		None needed.	Produces no effect requiring treatment.	10 minutes.	None needed.
INCENDIARIES	WHITE PHOSPHORUS P	SMOKE	Burning matches	Burning pieces adhere to skin, clothing.		None needed.	Pack in cloths wet with copper sulphate (blue vitriol) or water or immerse in water. Pick or squeeze out particles. Treat for burn.	10 minutes.	Burns out.
INCENDIARIES	THERMIT 8Al + $3FeO_4$	INCENDIARY	None	5,000 degree heat ignites materials.		None needed.	Treat for severe burn.	5 minutes.	Quickly cover with earth or sand.

GENERAL INSTRUCTIONS

The importance of proper first aid for gas victims cannot be overemphasized. The following are general rules which apply in all cases.

A. Act promptly and quietly; be calm.

B. Put a gas mask on the patient if gas is still present or, if he has a mask on, check to see that his is properly adjusted. If a mask is not available, wet a handkerchief or other cloth and have him breathe through it.

C. Keep the patient at absolute rest; loosen clothing to facilitate breathing.

D. Remove the patient to a gas-free place as soon as possible.

E. Summon medical aid promptly; if possible, send the victim to a hospital.

F. Do not permit the patient to smoke, as this causes coughing and, hence, exertion.

KEY

- HOSPITAL CASE
- FIRST AID TREATMENT
- SMOKE
- INCENDIARY
- MASK PROTECTION NEEDED
- FULL PROTECTIVE CLOTHING NEEDED

U. S. GOVERNMENT PRINTING OFFICE: 1942 O-435349

Deaths

Melville F. Boulden, M.D., Frankfort, died April seventh, at the age of seventy-two. Doctor Boulden was a graduate of the Illinois Medical College in 1903, and was a member of the Clinton County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

* * *

Emery W. Brooks, M.D., of Muncie, a graduate of Barnes Medical College, St. Louis, in 1901, died at the Veterans' Hospital in Marion, March thirtieth, aged sixty-six.

* * *

Charles C. McFarlin, M.D., a graduate of the Kentucky School of Medicine in 1902, died at his home in Westport, April sixth, aged seventy-three.

* * *

John W. McGowan, M.D., of Oakland City, died at his home on March twenty-sixth. He was eighty-eight years of age, and was a graduate of the University of Louisville School of Medicine in 1881. Doctor McGowan was a member of the Gibson County Medical Society, the Indiana State Medical Association, and the American Medical Association.

H. H. Koons, M.D., of New Castle, died at his home on April fourth, at the age of sixty-nine. He was a graduate of the Medical College of Ohio, Cincinnati, in 1897. He was a member of the Henry County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

John G. Gill, M.D., aged eighty, died at his home in Kendallville, on March twenty-sixth. Doctor Gill graduated from Rush Medical College, Chicago, in 1897.

* * *

Elmer B. Grosvenor, M.D., Richmond, died at his home on March twelfth, aged eighty. Doctor Grosvenor was a graduate of Pulte Medical College, Cincinnati, in 1882.

* * *

Joseph Warrick Clifford, M.D., of Worthington, died March twenty-sixth, aged seventy-nine. He graduated from the Georgia College of Eclectic Medicine and Surgery, Atlanta, in 1895. Doctor Clifford was a member of the Greene County Medical Society, an honorary member of the Indiana State Medical Association, and a Fellow of the American Medical Association.

SALVAGE FOR VICTORY

DOCTORS HAVE BEEN ASKED TO AID IN THE "SALVAGE FOR VICTORY PROGRAM."
SAVE PAPER—SAVE RAGS—SAVE RUBBER—SAVE METAL

Your old rubber surgical gloves, catheters, rubber bulbs, ampoule stoppers, colon tubes, douche bags, fountain syringes, Kelly pads, rubber aprons and other miscellaneous used and damaged rubber goods are needed in the war effort. Broken instruments (many contain fine steel) and corroded needles can be salvaged. *SAVE THESE THINGS!*

In Indianapolis our hospitals and surgical supply houses are serving as collection centers. Your community may do the same. *BRING IN THE SCRAP. McARTHUR NEEDS IT.*

In your home, *SAVE PAPER AND RAGS.* Bind them or package them in compact bundles or cartons. *SAVE METAL AND ALL USED OR DAMAGED RUBBER* articles. Call your local Civilian Defense Chairman when ready to dispose of the scrap.

If you own a farm or other property, save scrap there. In the Middle West it has been estimated that among self-maintaining farms there is an average of five hundred pounds of scrap metal per farm. *SEE THAT IT IS SAVED.*

Tell your family, relatives and friends to save all scrap. Your church, lodge or club can collect the salvage if you encourage them to do so.

WHAT TO DO WITH THE SCRAP

Many will want to give it away. Some may want to sell it. Sell and receive payment in Defense Stamps. Encourage your community organizations to put on Salvage Campaigns. The proceeds may go far to assist some orphanage, community fund, welfare agency or church. *DOCTORS*, take the initiative in your community! Your influence will help.

EUGENE F. BOGGS, M.D., *Chairman,*
Marion County Civilian Defense Salvage for Victory Committee.

News Notes

Dr. Joseph L. Allen, of Greenfield, and Mrs. Mildred E. Lowe, of Fountaintown, were married March fourth in Greenfield.

Dr. M. Quentin Kintner and Miss Christine Carlson, both of Indianapolis, were married in the North Methodist Church, Indianapolis, March eighth.

Dr. Paul D. Williams, former assistant superintendent of the Logansport State Hospital, has been named superintendent of the Richmond State Hospital.

Dr. Harry D. Schell, of Indianapolis, and Miss Judith Harris, of Bloomington, were married in the First Methodist Church at Connersville on March seventeenth.

Dr. H. Vernon Madsen, former resident physician at the state sanatorium at Rockville, has been appointed superintendent of the Smith-Esteb Memorial Hospital at Richmond.

Dr. Gah T. Bowers, of Fort Wayne, has been appointed by Governor Schricker to succeed his father, Dr. J. W. Bowers, as a member of the Indiana State Board of Medical Registration and Examination.

Dr. Mildred J. Buzza has been made a member of the medical staff of the Logansport State Hospital. Dr. Buzza, a native of Iowa, came to this position from New York State.

The president of the Pulaski County Medical Society reported that for the first time in the history of their society it is functioning 100 per cent. We wish to congratulate them on their attainment and to wish them continued success.

The new Mount Mercy Sanitarium, near Dyer, was formally opened Thursday, March nineteenth. The Most Reverend John F. Noll, D.D., Bishop of the Fort Wayne Diocese, gave the dedication address. The sanitarium is operated by the Sisters of Mercy. Dr. Michael Koenig, of Chicago, is medical director.

Following a recent survey conducted by the American College of Surgeons, the Indianapolis City Hospital was commended for its accomplishments in connection with the functions of the cancer clinic. Since the clinic was organized, 1,281 cases of malignancy have been admitted to the hospital, as follows: 249 in 1937, 228 in 1938, 275 in 1939, 262 in 1940, and 267 in 1941.

Dr. Kathryn M. Whitten, of Fort Wayne, is the author of a book entitled "The Horses of the Sun." This book, which deals with the work of women in medicine, will be placed in a special collection in the library of Tulane University, New Orleans. The book and a photograph of the author will be included in an exhibit, setting forth the work of women in medicine, at the Louisiana State Medical Society convention later this month.

Dr. Robert C. Rogers, well-known physician of Bloomington, was honored with a turkey dinner on his seventy-second birthday, March sixth.

Dr. Ray D. Miller, on the medical staff of Home Lawn Sanitarium at Martinsville, has entered the service. He is succeeded by Dr. K. L. Dickens, formerly of New Orleans.

MEETING OF AMERICAN HEART ASSOCIATION

The eighteenth scientific meeting of the American Heart Association will be held June fifth and sixth, at Chalfonte-Haddon Hall, Atlantic City, New Jersey.

In connection with the state-wide observance of Doctor's Day, March thirtieth, the Porter County Medical Society selected Doctor Alonzo W. Vincent, of Valparaiso, for special honor. Doctor Vincent, who died in 1916, at the age of seventy-seven, served the people of Porter and Lake counties many years in the days when transportation was difficult and hospital conveniences few.

At the sixty-ninth annual meeting of the Northern Tri-State Medical Association, held in Fort Wayne, April seventh, the following officers were elected: President, Dr. Howard J. Cummings, Ann Arbor, Michigan; vice-president, Dr. E. B. Gillette, Toledo, Ohio; secretary, Dr. F. R. N. Carter, South Bend, Indiana; treasurer, Dr. O. P. Klotz, Findlay, Ohio; counsellors, Dr. H. S. Randall, Flint, Michigan; Dr. Frederick Yonkman, Detroit; Dr. H. E. Jones, Lima, Ohio; Dr. Frank Clifford, Toledo, Ohio; Dr. G. O. Larson, LaPorte, Indiana; and Dr. D. F. Cameron, Fort Wayne.

Colonel Thomas Dobbins, Medical Reserve Corps, of Evansville, has been appointed special agent for the National Committee for the Conservation of Manpower. This committee, whose members are nationally known medical and safety experts from private industry, is sponsoring and generally supervising a plan whereby every industrial unit, no matter how small, operating on a government contract, will have available, without cost, the same skill and technic in accident prevention used by the country's leading industries. This committee's

program in no sense supersedes that of state and local safety and health agencies, but is intended rather to augment statute regulations. The important factor is to have a man able to stay on the job which he is physically as well as technically qualified to do.

At the annual meeting of the Indiana Academy of Ophthalmology and Otolaryngology, held April first at the Claypool Hotel, the following officers were elected: President, Dr. Kenneth L. Craft, Indianapolis; first vice-president, Dr. F. S. Cuthbert, Kokomo; second vice-president, Dr. C. A. Robison, Frankfort; secretary-treasurer, Dr. J. K. Leasure, Indianapolis; members of council, Dr. E. E. Holland, Richmond, and Dr. N. S. McBride, Terre Haute.

VITAMIN FILMS IN COLOR

Three 16-mm. silent motion pictures in color, descriptive of vitamin deficiency diseases are available to physicians for showing before medical societies and hospital staffs. One deals with thiamine chloride deficiency, one with nicotinic acid deficiency, and the third with ariboflavinosis. The major part of all films concerns the clinical picture presented by the patient with reference to treatment by diet and specific medication. The films were made at the Nutrition Clinic of the University of Cincinnati at the Hillman Hospital, Birmingham, Alabama, and are available through Eli Lilly and Company, Indianapolis.

The Medical Division of the Office of Civilian Defense wishes to bring the following information to the attention of the medical profession:

DECONTAMINATION OF EYES AFTER EXPOSURE TO LEWISITE AND MUSTARD

Since publication of the Office of Civilian Defense handbooks, "First Aid in the Prevention and Treatment of Chemical Casualties" and "Protection Against Gas," further experience has shown that the 2% solution of hydrogen peroxide recommended for the treatment of eyes following lewisite burns may be injurious if used undiluted. The Chemical Warfare Service now recommends a single instillation in the eyes of a 0.5% solution of hydrogen peroxide as soon as possible after contamination with lewisite. This solution may be prepared by diluting one part of a 2% solution with three parts of water, or one part of a 3% solution with five parts of water. The solution usually found in drugstores is the U. S. P. strength of 2.5 to 3.5 per cent hydrogen peroxide. A 0.5% solution of potassium permanganate has also been found effective as an eye instillation following exposure to lewisite.

In planning decontamination stations, the Medical Division, Office of Civilian Defense, recommends that provision be made near the entrance of the second or shower room for the irrigation of the eyes of contaminated persons. The schematic sketch of a decontamination station in the Office of Civilian Defense publications mentioned above shows the irrigation of eyes in the dressing room, whereas this should be carried out in the second or shower room before the bath is given. Delay until the casualty reaches the dressing room will result in more serious injury to eyes which have been contaminated with mustard or lewisite.

ELEVENTH DISTRICT MEETING

The Eleventh Indiana Councilor District Medical Meeting will be held at the Flora Community Building, Flora, on May 20, 1942, at 2:00 P. M. The program is as follows:

I. Business Session.
II. "Progress in Pediatrics," by Dr. Lee Palmer, Associate Professor of Pediatrics, University of Louisville, Louisville, Kentucky. General Discussion.
III. "Non-Surgical Treatment of Pelvic Conditions," by Dr. H. Allison Miller, Marion, Indiana. General Discussion.
IV. "Non-Tubercular Lesions of the Chest," by Dr. J. O. Ritchey, Indiana University Medical School, Indianapolis. General Discussion.

Al. H. Wynkoop, of Lebanon, will be the banquet speaker.

An interesting afternoon entertainment has been planned for the ladies.

PROGRAM FOR POSTGRADUATE COURSE IN OBSTETRICS SPONSORED BY MARSHALL COUNTY MEDICAL SOCIETY IN CO-OPERATION WITH BUREAU OF MATERNAL AND CHILD-HEALTH OF THE INDIANA STATE BOARD OF HEALTH

Note: This refresher course will consist of four weekly meetings to be held on Monday evenings for four consecutive weeks on the dates indicated. The sessions will be held at the Hi-Way Inn, Plymouth, Indiana. Dinner will be served at 6:30 P. M., and the scientific meeting will follow at 7:15 P. M.

First Week—Monday—April 20
1. Antenatal Care and Management of Labor
2. Episiotomy and Repair
   (With motion pictures)
3. Posterior Positions

Second Week—Monday—April 27
1. Toxemias of Pregnancy
2. Eclampsia
   (With motion pictures)
3. Bleeding During Pregnancy

Third Week—Monday—May 4
1. Indications for the Use of Forceps
2. Forceps
   (With motion pictures)
3. Postpartum Hemorrhage

Fourth Week—Monday—May 11
1. Cesarean Section
2. Low Cervical Cesarean Section
   (With motion pictures)
3. Puerperal Infection

Vigo County is on the front line in combating the enemy with the Immunization Program, 3,018 cases having been vaccinated for smallpox and 2,529 for diphtheria. Five hundred ninety-eight children of pre-school age also have been vaccinated.

NOTICE CONCERNING A NEW SUPPLEMENT TO THE PHARMACOPOEIA OF THE UNITED STATES

(Interim Revision Announcement No. 5)

AMMONIATED MERCURY OINTMENT, MILD MERCURIAL OINTMENT

A number of additional war emergency conditions have arisen due to a shortage in drug stocks or because of abnormal demands for some U.S.P. materials.

To immediately conserve the limited stocks of mercury, advantage is taken of the adoption by the U.S.P. XII Committee of Revision (on purely therapeutic grounds) of a 10 per cent *Mild Mercurial Ointment* (Blue Ointment) in place of the U.S.P. XI 30 per cent Ointment, and of a 5 per cent *Ammoniated Mercury Ointment*, instead of the U.S.P. XI 10 per cent Ointment.

A number of other proposals for changes in U.S.P. formulas or requirements to meet war conditions are now under consideration, but, to give prompt effect to those already approved this official statement is added to the recently published "U.S.P. Interim Revision Announcement No. 4." A formal printed "Supplement" covering the items included in this "Notice" will be issued in due time.

UNGUENTUM HYDRARGYRI AMMONIATI

Ammoniated Mercury Ointment (White Precipitate Ointment)

By special "Interim Revision" action, U.S.P. Ammoniated Mercury Ointment shall contain an amount of Ammoniated Mercury corresponding to not less than 3.5 per cent and not more than 4.5 per cent of Hg.

Replace the 10 Gm. of Ammoniated Mercury, directed in the U.S.P. XI formula for 100 Gm. of Ointment, by 5 Gm. of Ammoniated Mercury.

UNGUENTUM HYDRARGYRI MITE

Mild Mercurial Ointment (Blue Ointment)

By special "Interim Revision" action, U.S.P. Mild Mercurial Ointment shall contain not less than 9 per cent and not more than 11 per cent of Hg.

Replace the 600 Gm. of Strong Mercurial Ointment, directed in the U.S.P. XI formula for 1,000 Gm. of Ointment, by 200 Gm. of Strong Mercurial Ointment, and increase the White Wax and White Petrolatum in proportion.

All of the revisions herein announced are in effect as of the date of this "Notice" and may be adopted immediately, but, they will not become enforceable until November 1, 1942.

This "Notice" is issued under the authority of the Committee of Revision and of the Board of Trustees of the United States Pharmacopoeial Convention.

The United States Veterans Hospital at Marion has provided equipment for 250 additional patients, making over 1,500 beds available in the institution.

Dr. Byron N. Lingeman, of Crawfordsville, has been appointed district chairman of the United Service Organization. He will supervise the work of the organization in Montgomery, Tippecanoe, Clinton, Parke, Putnam, Fountain, Warren, and Boone counties.

Michael Reese Hospital, Chicago, offers a two-weeks' course in electrocardiography, August seventeenth to twenty-ninth, 1942, by Dr. Louis N. Katz. This is an intensive course offered to the general practitioner, and includes practice on several electrocardiographic machines and discussion of the principles of their construction and use. There will be sessions on interpretations of electrocardiograms illustrated by lantern slides. Routine records taken during the course will be discussed. The course is open to both the beginning and advanced student in electrocardiography. The class will be limited in number, and it is imperative, therefore, that reservations be made early. For further information, address Michael Reese Hospital, Cardiovascular Department, Twenty-ninth and Ellis Ave., Chicago, Illinois.

INDIANA UNIVERSITY NEWS NOTES

Dr. F. M. Gastineau has been named head of the Department of Dermatology and Syphilology at the Indiana University Medical Center. Doctor Gastineau will succeed Dr. Frank W. Cregor, who resigned because of ill health.

A native of Indianapolis, Doctor Gastineau was graduated from Indiana University with an A.B. degree in 1916 and with an M.D. degree two years later. He was a lieutenant in the United States Naval Medical Corps during the last World War. For two years following his graduation from the medical school, Doctor Gastineau was connected with the Bellevue Hospital of New York. He then returned to Indianapolis and for a number of years has been connected with the Indiana University School of Medicine.

Dr. Gastineau is on the staff of the City, Methodist and St. Vincent's hospitals in Indianapolis. He is a member of the Indiana State Medical Association and the American Medical Association, and is the author of a number of professional papers.

Medical students, one of the most essential future units of the Army and Navy, should be aided by a loan fund which would ease the unprecedented strain they are enduring in the preparedness program, according to Dr. W. D. Gatch, dean of the Indiana University School of Medicine.

Dr. Gatch asserted that the Indiana University medical students last semester made the highest scholastic average in many years, but that "they may be expected to suffer from strain unless we do something to ease their financial problems."

"Under the three-semester plan the students are given no vacations, and they are attending classes six days a week," he said. "This in itself is a strenuous schedule, but complicating it is the fact that nearly fifty per cent of the students are partially or entirely dependent upon the money they normally would earn in their vacation periods." A loan fund of not less than fifty thousand dollars is necessary to help these students over the crisis confronting them, the dean asserted.

"All students of the university are facing the same problem, of course, but the medical student problem is particularly acute, because the medical student's education directly is related to the preparedness program," he continued. "These boys are being educated in their classes and laboratories for a specific phase of the program which every one recognizes to be of paramount importance.

"Virtually every one of them will go into the Army or Navy Medical Corps. They are more important in World War II than they would have been in the last war, because this is a war of movement, with the Medical Corps required to be at or near the front line of combat. Only young men can stand this strain. The older physicians are not physically able to assume the burden. The established base hospital of the last war is obsolete in the 1942 warfare. We must train our young doctors at the utmost speed, but we can not lower our standards. The government does not want us to lower our standards, as evidenced by the fact that medical students, to obtain deferment, are required to attend at least 95 per cent of all exercises and pass in all their subjects."

Dr. Gatch pointed out that at least four years are required to train a doctor, plus three years of premedic education.

"In normal times a doctor had to spend from seven thousand to ten thousand dollars to educate himself, depending on the length of his postgraduate training, but in normal times the potential doctor could look forward to establishing a practice and getting on his feet financially. The medical students of today face a future which not only is most uncertain from a financial standpoint, but from a standpoint of personal safety and sound health." Despite this outlook students in the university school have tackled their problems with admirable morale and courage, Dr. Gatch said.

"I believe that they reflect credit not only on themselves, but on the careful method we have followed in selecting them," he said. "They are the pick of a large group of outstanding young Americans. It saddens all of us to realize that this war can not be won without the services of the finest in all professions and all lines, but that is a fact. The least we can do is to give them every possible lending hand."

Dean W. D. Gatch, of the Indiana University School of Medicine, recently explained that if the ten million man Army becomes a reality it probably will be necessary to call all physicians up to seventy years of age, and to assign them wherever their services are needed. "The people can help by taking care of their health," Dr. Gatch said. "They also can help by not wearing out the overworked doctors by unnecessary night calls or demands for immediate service except in case of an emergency."

Ear, nose and throat specialists from seventeen states attended the two weeks' postgraduate course at the Indiana University Medical Center April 13-25, possible military service being uppermost in their minds. This course, started more than twenty years ago by Dr. John F. Barnhill, was continued despite the war because of the opportunity it affords physicians preparing for military or naval service. One of the registrants, Dr. Thomas D. Alford, of the Army and Navy General Hospital, Hot Springs, Arkansas, was ordered to attend the course. Other postgraduate courses at the medical center have been suspended for the duration of the war.

States from which physicians came include Arkansas, Minnesota, Massachusetts, Pennsylvania, Connecticut, New York, Mississippi, South Carolina, Illinois, Indiana, North Carolina, Oklahoma, Vermont, Michigan, Texas, Missouri and Georgia.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

March 15, 1942.

Roll call showed the following present: C. A. Nafe, M.D., chairman; E. O. Asher, M.D.; M. A. Austin, M.D.; C. H. McCaskey, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Membership Report

Number of members March 13, 1942 (99 honorary members, 160 in service)	2,791
Number of members March 13, 1941	2,739
Gain over last year	52
Number of members December 31, 1941	3,226

The statements of receipts and expenditures for January and February for the association committees and THE JOURNAL were approved.

Treasurer's Office

The treasurer reported that he would invest in defense bonds up to $4,000.00.

Forty dollars ($1.00 per unit) received on Beachton Court Liquidation Trust Distribution.

1942 Annual Session at French Lick, September 29 and 30 and October 1, 1942

Commercial Exhibit. 25 spaces sold; 9 to be sold.

Following meeting of Scientific Program Committee on February 11, first draft of preliminary program completed.

Banquet Speaker. Suggestion of Dr. O. A. Province, chairman of the Scientific Program Committee, brought to the attention of the Executive Committee. This is to be discussed at the next meeting of the committee.

Request of National Physicians' Committee to place speaker on state program brought to the attention of the Executive Committee. This request was received after the Scientific Program Committee had held its meeting and completed the preliminary draft, so the Executive Committee felt that at this time there was no place for the speakers from the National Physicians' Committee upon the state program. Several members of the committee felt that until the American Medical Association places a speaker representing the National Physicians' Committee upon its official program, the State Association should not give official recognition on its program to a speaker from that organization.

Following discussion by the committee, it was decided that there should be no change of meeting place from French Lick to Indianapolis.

Scientific Exhibit.

Letter received from The Equitable Life Insurance Company in regard to a scientific exhibit. The committee felt that this should be part of the commercial exhibit.

Letter from Dr. A. E. Hertzler in regard to a goiter exhibit. The committee was of the opinion that Dr. Hertzler should be asked to bring his exhibit, and a suitable place should be found for showing it.

Legislative, Legal and Social Security Matters

National

H. R. 1052, the Tolin bill, to give chiropractors the right to treat compensation cases, reported out of subcommittee of the House Committee on Judiciary. It is now in a position to be brought before the entire Judiciary Committee for action.

The committee was informed that the attempt to federalize state employment services had been defeated.

Copy of Americal Medical Association legislative bulletin No. 14 distributed to each member of the committee.

Local. Attention of the committee called to the bill which was introduced in the New York State legislature, which would give organizations writing hospital service insurance the right to write medical insurance as well.

Organization Matters

The recommendation of the Bureau of Publicity and Dr. Edgar Kiser, historian, deferring until after the war the employment of a trained historical assistant for Dr. Kiser, brought to the attention of and approved by the committee.

Invitation to the committee to attend the March meeting of the Woman's Auxiliary to the Marion County Medical Society brought to the attention of the committee.

Dr. L. H. Allen of Bedford was reappointed a member of the Indiana Inter-Professional Health Council for 1942 by the Executive Committee.

Membership card for the state association representative was received from the American Public Health Association.

Question as to whether deferment of dues applies to United States Public Health Service employees brought before the committee. The committee is of the opinion that the deferment applies only to men who are in the armed services, that is, the Medical Corps of the Army or Navy. Upon the motion of Dr. M. A. Austin, seconded by Dr. F. T. Romberger, it was suggested that the House of Delegates discuss this matter at the next meeting, if there is any disagreement in regard to the opinion of the Executive Committee.

State Board of Health

Letter from Dr. John W. Ferree, director of the State Board of Health, to all private serological laboratories in regard to serological examinations brought to the attention of the committee. This letter to the serological laboratories, containing suggestions as to how pre-marital blood tests shall be made, comes as a result of the action taken by the State Board of Health. This action of the state board was taken as a result of the resolution passed by the Council of the Indiana State Medical Association at its midwinter meeting on January 11, 1942, which decried the "two-hour service" connected with "the marriage license racket."

Medical Economics

Tuberculosis Examination Statute. The Executive Committee suggested that communications arising out of the new tuberculosis examination law be brought to the attention of the Tuberculosis Committee at its meeting to be held on Sunday, March 22.

Medical Relief

Report on medical aid plans received from State Department of Public Welfare. This report showed that thirty counties have received tentative approval and the plans of seven counties are pending review.

Report made that in Cass County the State Welfare Department had made a contract with an individual physician to do the work for clients of the State Welfare Department under the recently amended welfare laws.

Clay County situation. The president of the Clay County Medical Society appeared before the Executive Committee and told of the situa-

tion existing in Clay County. The committee made certain suggestions as to how the situation may be remedied.

Letter received from the officers of the Randolph County Medical Society in regard to the proposed agreement between the Randolph County Medical Society and the Randolph County Welfare Department. This communication was to be taken up with Dr. J. S. Leffel, chairman of the Medical Relief Committee of the Indiana State Medical Association.

Reports for December, January and February on WPA cases reviewed by the committee.

Socialized Medicine

"My Views," a paper put out by "The Indiana Association of Business Men, Inc.," Linden Hotel Building, Indianapolis, contains the following short statement:

> "We expect our state and national representatives to oppose any legislation for socialized medicine which is introduced. None of us desire to become a ledger entry No. 16,732, or a guinea pig."

A report is to be made at the next meeting of the committee about the group backing this publication.

The socialization of medicine in Chile was the subject of an article which appeared in a recent issue of the *New York Times* that was brought to the attention of the committee. This article told of the enthusiasm of Chilean physicians for socialized medicine. The committee suggested that a request be made of the American Medical Association for any information it may have concerning this subject.

Clipping from an Indianapolis paper stating that "McNutt's Agency Favors Sick Benefits and Medical Care for All," brought to the attention of the committee.

Military Preparedness

Report made in regard to Procurement and Assignment Service for Physicians, Dentists and Veterinarians.

Civilian Defense. The committee approved the appointment of Dr. W. D. Little, chairman of the Committee on the Study of High School Athletics, as a member of the advisory board for the physical fitness program of the Indiana State Defense Council, representing the medical profession. This advisory board is to be made up of individuals representing the professional lay organizations which have as their chief interest the health and physical fitness of the citizenry.

The committee approved the suggestion received from Fort Wayne that a member of the Woman's Auxiliary be placed upon the state nutritional committee. This suggestion has been forwarded to Dr. John Ferree.

Suggestion of Dr. E. B. Jewell of Logansport that first aid refresher courses be given throughout the state was referred to the Committee on Medical Education and Hospitals by the Executive Committee.

Books and Journals in Medical Offices. Letter received, which had been written to Dr. A. M. Mitchell, suggesting that all obsolete medical books and journals be turned in to be reclaimed. The committee suggested that this letter be turned over to the editor of THE JOURNAL for any comment he might desire to make.

Letter received from the Michigan State Medical Society concerning the deferment of osteopaths from military service discussed by the committee. The Michigan society took action criticizing the memorandum concerning the deferment of osteopaths from military service sent out by the Selective Service System.

Letter from Dr. John W. Ferree, state health director, to industrial workers brought to the attention of the committee. This letter presents the problem of time-loss due to illness and accidents which seriously affects the national production program.

Future Meetings

A. M. A. meeting, Atlantic City, June 8 to 12, 1942.

District meetings:

First District	Evansville, May 28, 1942
Second District	Washington, June 2, 1942
Third District	New Albany, May 6, 1942
Fourth District	Aurora, May 14, 1942
Fifth District	, May 1, 1942
Sixth District	Liberty, May , 1942
Eighth District	Anderson, May 20, 1942
Ninth District	Monticello, May 21, 1942
Eleventh District	Flora, May 20, 1942

Group Hospitalization and Medical Service Plans

Annual report of The Franklin Square National Bank telling of a plan of insurance "against the cost of doctors', surgeons' and medical expenses" received. This is included in the annual report of the bank, and it states, "The plan has been enthusiastically accepted by many of our patrons as a low-cost method of supplementing the benefits of hospitalization insurance—to care for the heavier expenses of medical services."

The attention of the committee was called to the pamphlets received from the Twentieth Century and Good Will Fund, the Medical Administration Service, and the Mutual Benefit Health and Accident Association.

State Board of Medical Registration and Examination and Cult Study Committee

Suggestion brought to the attention of the committee that only American citizens be eligible to take examinations given by the State Board of Medical Registration and Examination. Citizenship is not now a requirement. The Executive

Committee felt that this was a matter to be presented to the House of Delegates.

Clippings from the *New York Times* quoting *The Journal of the Medical Society of the County of New York* urging "the removal of existing barriers against refugee physicians," brought to the attention of the committee.

Dr. Asher suggested that a statement be prepared, so that it may be had by each physician, which will give clearly, in simple language, the following information:

1. What is an osteopath?
2. What is a chiropractor?
3. What is a physician?

Such statement should tell what each one is legally licensed to do and what type of service he is qualified to render.

Farm Security Administration

Letter received from Clarence Munns of Kansas concerning the program of the Farm Security Administration.

THE JOURNAL

Publicity for the American Society for the Control of Cancer approved.

The committee did not feel that we should accept due bills upon any hotel in return for advertising in THE JOURNAL.

The committee felt that THE JOURNAL office should be guided by the directions of the Cooperative Medical Advertising Bureau in regard to rates charged for color advertisements.

The committee felt that the office should continue to send statements to physicians who are in arrears in payment for professional cards.

The committee approved accepting the Camel Cigarette advertising directly.

Report made that several of the old advertisers have reduced their advertising accounts, but contracts from two new advertisers have been received and a third one is pending, and THE JOURNAL office hopes by the end of the year to overcome these losses in advertising.

There being no further business, the meeting was adjourned.

Annual Convention

Indiana State Medical Association

French Lick

September 29, 30 and October 1, 1942

LOCAL SOCIETY REPORTS

COUNTY MEDICAL SOCIETY OFFICERS

(Numerous reports were published in the January, February, March and April issues; these additional reports have been received since publication of those issues.)

ST. JOSEPH COUNTY MEDICAL SOCIETY:
President, A. S. Giordano, South Bend.
Vice-President, K. E. Selby, South Bend.
Secretary-Treasurer, M. J. Thornton, South Bend.

VIGO COUNTY MEDICAL SOCIETY:
President, Frank E. Sayers, Terre Haute.
Vice-President, A. W. Cavins, Terre Haute.
Secretary-Treasurer, A. M. Mitchell, Terre Haute.

Boone County Medical Society members held a dinner meeting at the Witham Hospital, at Lebanon, on February nineteenth. The speaker was Dr. J. K. Berman, of Indianapolis, who read a paper on "'Sulfa Drugs'—Their Mode of Action and Their Practical Application." Sixteen members attended this meeting.

* * *

Carroll County Medical Society members held a meeting at the home of Dr. H. Y. Mullin, at Rockfield, on March nineteenth. The speaker, Dr. Harry Buhrmester, of Lafayette, read a paper entitled "Problems in Selective Service Examinations for Local Medical Doctors." Nine members and guests were present at this meeting.

* * *

Dearborn-Ohio County Medical Society members held their February meeting at the Maple Inn, at Aurora, on the twenty-sixth. The speaker, Dr. E. L. Libbert, of Lawrenceburg, discussed the subject of "Historical Side-lights." Fourteen members were present.

At a meeting on March twenty-sixth, at the Chat 'N' Nibble Tea Room, Dr. Kenneth Riddle, of Cincinnati, read a paper on "The Use and Abuse of Sulfonamide Drugs." Fifteen members attended this meeting.

* * *

Delaware-Blackford County Medical Society members held a meeting at Roberts' Hotel, at Muncie, on March seventeenth. Dr. W. C. Moore, of Muncie, discussed "Use of Sulfanilamide Powder in Peritonitis, Post-operatively." Twenty-six members were present.

* * *

Fountain-Warren Medical Society members held a meeting at the Kingman Methodist Church, Thursday, April ninth, the ladies of the church serving a chicken dinner. Thirty guests were present. Dr. Floyd Romberger, of Lafayette, addressed the meeting on "The Effect of the War on the Medical Profession."

Grant County Medical Society members held a meeting at the Marion General Hospital, at Marion, on March twenty-sixth. Papers were read by the following members: Dr. H. A. Miller on "Chemotherapy in Surgery," Dr. M. S. Davis on "Chemotherapy in Orthopedics," Dr. E. O. Daniel on "Chemotherapy in Medicine," and Dr. Hunter Stewart on "Chemotherapy in Obstetrics." The papers were then discussed by all the members. Twenty-two members attended this meeting.

* * *

Greene County Medical Society members held their March meeting at the Freeman Greene County Hospital, at Linton, on the twelfth. Dinner was served by the hospital nursing staff. Dr. J. W. Jackson, state epidemiologist at the Indiana State Board of Health, spoke on "Indiana's Quarantine Law and Communicable Diseases." Twelve members were present at this meeting.

* * *

Henry County Medical Society members held a meeting at New Castle on March nineteenth. The speaker, Dr. A. B. Richter of Indianapolis, read a paper on "Hypertension." Nineteen members attended the meeting.

* * *

Indianapolis (Marion County) Medical Society members held a meeting at the Indianapolis Athletic Club, April seventh, at which the following case reports were presented: "Case of Mold Allergy," by Dr. C. B. Bohner; "Repair of Traumatic Injury to the Facial Nerve," by Dr. Bert E. Ellis; "Case of Paralysis, a Result of the Pasteur Treatment," by Dr. Don Wood; "Case of Arrhenoblastoma," by Dr. Paul Cullen; "Two Cases of Fracture of the Femoral Neck," by Dr. Gordon Batman; and "Resection of the Prostate in Young Individuals," by Dr. P. E. McCown.

* * *

Johnson County Medical Society members held a meeting at Snyders Cafe, at Franklin, on March nineteenth. Dr. J. D. Winebrenner, of Columbus, discussed "Public Health Problems." Eight members were in attendance at the meeting.

* * *

Muncie Academy of Medicine members held a meeting at Hotel Roberts, at Muncie, on March tenth. Dr. Irvine H. Page, of Indianapolis, was the guest speaker.

* * *

Orange County Medical Society members held their February meeting at the home of Dr. and Mrs. W. E. Schoolfield, at Orleans, on the twenty-sixth. Seven members and guests attended the meeting.

* * *

Parke-Vermillion County Medical Society members held a meeting at the Vermillion County Hospital, at Clinton, on March eighteenth. Dr. Paul Merrell, of Indianapolis, spoke on "Head Injuries." Twelve members and one guest were present.

Pike County Medical Society members held a meeting at the office of Dr. J. T. Kime, at Petersburg, on April third. The organization of Well Baby Clinics was discussed. Eight members were in attendance at this meeting.

* * *

Putnam County Medical Society members held their March meeting at the Putnam County Hospital, at Greencastle, on the twelfth. Organization of a staff for the Putnam County Hospital was the special feature. Ten members attended the meeting.

* * *

Randolph County Medical Society members held a meeting at the Randolph County Hospital on March ninth. Dr. L. K. Phipps, of Union City, spoke on "Cancer of the Lungs." Fourteen members and one guest attended the meeting.

* * *

Rush County Medical Society members held their March meeting at the Lollis Hotel, at Rushville, on the twelfth. Dr. John Warvel, of Indianapolis, was guest speaker, his subject being "Geriatrics." Attendance numbered twelve.

* * *

St. Joseph County Medical Society members held a meeting at the Lasalle Hotel, at South Bend, on March eighteenth. The guest speaker was Dr. Charles F. McKhann, professor of pediatrics at the University of Michigan, Ann Arbor.

* * *

Vanderburgh County Medical Society members held a meeting at the Mead Johnson Company plant on March tenth.

ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF EYE, EAR, NOSE AND THROAT SOCIETY SECRETARIES

One of the sidelights of the forty-sixth annual convention of the American Academy of Ophthalmology and Oto-Laryngology held in Chicago last October was the annual meeting of the American Association of Eye, Ear, Nose and Throat Society Secretaries. This organization, now in its fourth year, is composed of the secretaries of some sixty Eye, Ear, Nose and Throat Societies, covering the entire United States and parts of Canada. Annual meetings are always held in conjunction with the American Academy conventions, and throughout the year all business is conducted quite satisfactorily by correspondence between members, directors and officers through a central clearing house in the office of the secretary. Announcements and items of interest to secretaries in general are carried in the *Transactions of the American Academy*, published bimonthly.

The meeting was held at a luncheon provided by the American Academy, which has sponsored this

organization from the time of its inception 'though assuming no direct control over its functions nor deliberations. In fact, although most Eye, Ear, Nose and Throat Society secretaries are members of the American Academy, such affiliation is not essential for membership in the secretarial group, and secretaries of all Eye or Ear, Nose and Throat Societies are eligible and welcome. The main part of the meeting was given over to a round-table discussion of the various functions and problems of the Eye, Ear, Nose and Throat Society and its secretary. The discussion was ably led by Dr. Francis L. Lederer, chairman of the Department of Laryngology, Rhinology and Otology at the University of Illinois. Dr. Lederer spoke briefly upon the functions of a local Eye, Ear, Nose and Throat Society, the most interesting and suitable types of programs to be presented, and mentioned the following activities in which such societies should participate:

Educate the public by way of schools and radio.

Co-operate with the League for Hard of Hearing.

Form a relationship between specialists and general practitioners and co-operate with county medical societies.

Encourage publication of articles for educational purposes in state journals and other media reaching the general practitioner.

Participate in programs of other specialty societies and general medical groups.

Dr. Lederer's remarks stimulated a very active and interesting discussion among the thirty-eight men present.

Prior to the above meeting the officers and directors held their annual business meeting, a report of which was presented at the luncheon. Officers and directors were elected as follows: President, Dr. Walter H. Theobald, Chicago; President-elect, Dr. W. Howard Morrison, Omaha; Secretary-Treasurer, Dr. Kenneth L. Craft, Indianapolis; Directors, Drs. Brittain F. Payne, New York; L. A. Brown, Atlanta; Hugh Thompson, Columbus, Ohio; John R. Myers, Syracuse, N. Y.; M. G. Lynch, New Orleans; J. C. Ogden, Long Beach, California; Ralph T. Rank, Milwaukee, Wisconsin; W. E. Keith, Kansas City, Missouri.

Indiana was represented at this meeting by Drs. Carl H. McCaskey, Indianapolis, member of The Council of the American Academy of Ophthalmology and Oto-Laryngology; Bernard Ravdin, Evansville, secretary of the Eye, Ear, Nose and Throat Section of the Indiana State Medical Association, and Kenneth L. Craft, secretary of the Indianapolis Ophthalmological and Oto-Laryngological Society.

KENNETH L. CRAFT, M.D.,
Secretary of The American Association of Eye, Ear, Nose and Throat Society Secretaries,
1002 HUME-MANSUR BLDG.,
INDIANAPOLIS, INDIANA.

WOMAN'S AUXILIARY

President—Mrs. Ernest O. Nay, Terre Haute.
President-Elect—Mrs. Arnold Duemling, Fort Wayne.
Corresponding Secretary—Mrs. Don M. Mattox, Terre Haute.
Treasurer—Mrs. T. R. Hayes, Muncie.

Last call for reservations for the twentieth annual convention of the Woman's Auxiliary to the American Medical Association, which will be held at Haddon Hall, Atlantic City, New Jersey, June 8-12.

Atlantic City extends a hearty welcome to you!

COUNTY NEWS

The Public Relations Committee of the Marion County Auxiliary held a meeting in the auditorium of L. S. Ayres and Company, to which the public was invited on March twenty-third. Dr. H. S. Leonard gave a talk, his subject being "Emergency Medical Service," and Dr. A. F. Weyerbacher discussed "Venereal Diseases." Major Glen Ward Lee talked on "Physical Defects Found in American Youth Examined for War Service." A tea followed.

After speaking at the Rotary Club at noon and the Michigan City High School assemblies during the day, Dr. W. W. Bauer, of Chicago, addressed a joint session of the LaPorte County Medical Society and the Woman's Auxiliary on March nineteenth. A dinner preceded the meeting.

The March meeting of the Vigo County Medical Auxiliary was held at St. Anthony's Hospital. Following the business meeting the book "The Long Winter Ends" was reviewed.

Mrs. Noel McBride has charge of bringing the Blood Donor Mobilized Unit to Terre Haute. The unit has been in Terre Haute once and will return in May.

Mrs. Ivan Gilbert, R.N., is teaching the classes of Red Cross Nurses' Aides. One class has completed the course and another is being formed.

Mrs. D. R. Ulmer, a talented musician, has gone to Florida, where she and Dr. Ulmer will make their home. She leaves a host of friends.

Porter County Auxiliary met at a dinner meeting March thirty-first. Mrs. E. O. Nay was honor guest and spoke on "The Growth of the Medical Profession in Indiana from the Beginning of the Last Century." A discussion of work done by other auxiliaries in the state and suggestions for work along defense lines followed. Mrs. G. H. Stoner gave a paper on "Work and Hardships of the Early Doctor in Porter County." This latter paper was Porter County's contribution to the state project which is a compilation of a history of early doctors in the state.

Dr. H. G. Hamer, of Indianapolis, spoke at the regular board meeting of the Indiana State Auxil-

iary held at the Columbia Club on March nineteenth. The first subject discussed by Dr. Hamer was "The Council on Nutrition." He pointed out that the main purpose of this council is to acquaint the public with the food situation, and to make the people conscious of adequate food needs. The second subject of Dr. Hamer's talk was "The History of Medicine." He stated that each community has something buried which might add to the history of medicine, and urged the auxiliary members to be on the alert for such data.

Allen County reported that they are doing Red Cross work. Their project is to group those trained in first aid, etc., in each district and keep those names on file.

One afternoon each week the Howard County Auxiliary works with the Red Cross.

Sullivan County has organized an auxiliary. Mrs. Scott is the president.

Through the initiative of the Pioneer Memorial Committee of the Woman's Auxiliary (Mrs. O. G. Pfaff, chairman) a Memorial Plaque was conceived and executed on paper in honor of the following pioneer souls of medicine: Dr. John Lambert, Richmond; Jane Todd Crawford, Danville, Kentucky; Dr. John Stough Bobbs, Indianapolis, and Mrs. Z. Burnworth, Oaklandon. This memorial was officially presented to the Library of the Indiana University School of Medicine at one of the weekly seminars on October 11, 1940. Mrs. Pfaff, chairman of the committee, made the presentation talk, outlining the debt which medicine owes to those cited on the plaque. It has hung on the south wall of the library since that date.

At that time it was hoped that the plaque could eventually be cast in bronze, thus bequeathing a permanence to the memorial more befitting those eulogized. At the March 18th meeting of the Executive Board funds were voted to cover the cost of the bronze plaque. Through the tireless efforts of Mrs. Pfaff this plaque has assumed reality and will shortly supplant the paper model which has hung in the library.

ABSTRACTS

SULFATHIAZOLE OINTMENT EFFECTIVE FOR IMPETIGO CONTAGIOSA

The average time required to cure 40 patients with impetigo contagiosa, a contagious inflammatory skin disease, by local application of sulfathiazole (a derivative of sulfanilamide) in ointment form was nine and one-half days as compared with from twelve to sixteen days required with the previous conventional treatment, L. H. Winer, M.D., and E. A. Strakosch, M.D., Minneapolis, report in *The Journal of the American Medical Association* for January 17.

The two physicians explain that among the pus producing infections of the skin, impetigo contagiosa is the most superficial and also the most common.

DISCUSSES INTERNSHIPS, RESIDENCIES AND FELLOWSHIPS AND THE WAR

"The indications are that the needs of the Army, the Navy, public health and the civilian population can be met by scientific planning and complete cooperation without any deterioration in the quality of medical education and medical service," *The Journal of the American Medical Association* for March 28 declares in an editorial discussing internships, residencies and fellowships in connection with the nation's war effort.

Referring to the list of approved hospitals published in the same issue of *The Journal* in the annual report of the Association's Council on Medical Education and Hospitals, the editorial says: "These hospitals have a significant role in medical education, illustrated by the fact that they are currently engaged in the training of 7,219 interns and 5,756 residents, assistant residents and fellows. This represents the equivalent of two and a half annual graduating classes of all approved medical schools in the United States.

"The undergraduate medical curriculum does not offer sufficient training to meet the medical needs of a community. Recent graduates must therefore receive further experience in clinical practice under the guidance of a competent hospital staff. The internship fulfils this purpose and serves to complete the preparation for general practice. It bears an equally important relationship to the graduate field, where it constitutes an essential prerequisite for residency, fellowship and other specialty training that may lead to certification by the American specialty boards. In the broadest sense the internship is part of the fundamental training essential to a career in medicine. . . . The preservation of the internship is therefore essential to the maintenance of adequate standards of medical practice. This is fully recognized by the United States Army, the United States Navy and the Selective Service, which have made provisions whereby interns, medical students and even premedical students who have matriculated in medical schools may secure deferment from active military service until they have completed their undergraduate studies and one year of internship.

"According to present indications the number of interns available for hospital service will not be lessened. Indeed, it may be increased because of the accelerated program of medical education adopted by most approved medical schools, which involves the graduation of a class every nine months. The long term internships are now generally being reduced to twelve months in accordance with military needs, but necessity has not been apparent for any further reduction below this point. Hospitals may need to readjust their arrangements for the internship, however, to provide for the appointment of interns at such times as will coincide with the new periods of graduation, since the majority of medical graduates will probably be called to military service immediately on completion of the regular intern year. . . .

"Though provision has been made for the deferment of medical students and interns, a similar plan has not been developed to provide for the training of young physicians beyond the period of a one year internship. Residencies in specialties will no doubt be greatly curtailed during the present emergency. . . .

"Since the further education of a certain number of physicians is vital to the future welfare of the country, the Advisory Board for Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association have appointed a committee whose chief purpose is to formulate plans whereby a percentage of interns may be given an opportunity to continue their training in the special fields of medicine.

"Efforts are being made by all the agencies concerned to prevent any depreciation in the standards of medical education, hospital service and medical care during the war."

Books

RECEIVED

NEPHRITIS. By Leopold Lichtwitz, M.D., Chief of the Medical Division of the Montefiore Hospital; Clinical Professor of Medicine, Columbia University, New York. 328 pages with 62 illustrations. Cloth. Price $5.50. Grune & Stratton, New York, 1942.

* * * *

PEDIATRIC GYNECOLOGY. By Goodrich C. Schauffler, M.D., Assistant Clinical Professor of Obstetrics and Gynecology, University of Oregon Medical School, Portland, Oregon. 384 pages with 66 illustrations. Fabrikoid. Price $5.00. The Year Book Publishers, Inc., Chicago, 1942.

* * * *

REVIEWED

NEUROANATOMY. By Fred A. Mettler, A.M., M.D., Ph.D., Professor of Anatomy, University of Georgia School of Medicine. 476 pages with 337 illustrations, 30 in color. Cloth. Price $7.50. The C. V. Mosby Company, St. Louis, 1942.

This book is an addition to the already famous and established texts on neuro-anatomy, such as those of Ransom and Larsell. It is the most up-to-date text, having come off the press very recently. Dealing with a subject that is much feared and respected by students, it is intended chiefly for them; however, it may be read with profit to and enjoyed by any practitioner.

The book is divided into two parts. The first part deals with the gross anatomical aspects; an attempt has been made to give topographical relations and to help orient the student as to the relations of important units of the nervous system. The illustrations are very good and should be of immense help in trying to visualize the various structures. The second part deals with the microscopic details and appears to be very adequate and thorough. Throughout the book effort is made to show, by diagrams, important cell groups and fiber connections. The diagrams, especially, should go far in helping to fix in memory the most important features. Because of the tremendous amount of exhaustive research in neuroanatomy, there is a great deal to see and remember. This may be very tedious, but much of it is necessary. The purpose of the entire text is to help the reader find his way with a minimum of exertion.

There are numerous neurophysiological discussions and frequent clinical applications, although these are not intended to be very complete, being left for more study elsewhere.

A carefully compiled bibliography and index complete the book.

H. B.

ALLERGY IN CLINICAL PRACTICE. By Staff Members of the Cleveland Clinic, under the direction of Russell L. Haden, M.D., F.A.C.P., Chief of the Medical Division and edited by J. Warrick Thomas, M.D., F.A.C.P., Chief of Section on Allergy. 354 pages, with 92 illustrations—14 in color. Price $5.00. J. B. Lippincott Company, Philadelphia, 1941.

This is one of a series of excellent books put out by physicians in the Cleveland Clinic. Confining itself to the handling of allergic conditions in everyday practice, it may be recommended to any busy practitioner.

The field of allergy has become a comprehensive specialty, subject to all spectacular accomplishments in medicine, yet full of the limitations that go with any closely confined branch of medicine. Perhaps this one is subject to criticisms of overemphasis and narrowness more so than other specialties, but the authors have tried to meet such criticisms and to prevent any untoward sequels that might be produced in this respect. The average physician is probably much confused and puzzled as to the various types of tests for allergy, their number and

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

In addition to our Professional Liability Policy for private practice we issue a special

MILITARY POLICY

to the profession in the Armed Forces at a

REDUCED PREMIUM

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

COOK COUNTY GRADUATE SCHOOL OF MEDICINE

(In affiliation with COOK COUNTY HOSPITAL)

Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique with practice on living tissue, every two weeks throughout the year. General Courses, One, Two, Three and Six Months; Clinical Courses; Special Courses.

MEDICINE—Two Weeks Intensive Course will be offered starting June 1st and October 5th. Two Weeks Course in Gastro-Enterology will be offered starting June 15th and October 19th. Two Weeks Intensive Course in Electrocardiography and Heart Disease starting August 3rd.

FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting June 29th and September 21st. Informal course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting June 15th and October 19th. One Month Personal Course starting August 3rd. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting October 5th. Three Weeks course starting August 10th. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14th. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28th. Five Weeks Course in Refraction Methods starting October 19th. Informal Course every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore St., Chicago, Ill.

kind. Here, he will find plenty of straightforward and comprehensive instruction.

The various phases of allergy are well covered and ably presented. There are sections upon bronchial asthma, hay fever, nasal allergy, allergic bronchitis, bronchiectasis (very important), dermatitis and eruptions due to drugs, urticaria and angioneurotic edema, gastro-intestinal, ocular and endocrine forms of allergy, migraine, and unusual forms of allergy.

There is possibly room for one criticism, namely, that little or nothing is said about the psychogenic participation in various allergic conditions. In recent years, a great deal of work has demonstrated the importance of emotional factors, so that the phychologic phase cannot be ignored but must be considered.

H. B.

ABSTRACT

BLOOD COLLECTIONS FOR ARMY, NAVY REPORTED AT INCREASING RATE

With 30,477 blood donations being reported for the first two weeks in March by Red Cross chapters maintaining donor centers, the program for supplying blood plasma to the armed forces has entered its second year of operation with an excellent start. Inaugurated in February, 1941, at the request of the Surgeons General of the Army and Navy, this project has expanded as rapidly as laboratory facilities to process plasma have become available. Donor centers are now operating in eighteen cities.

Shortly after beginning of the project, the Red Cross was requested to deliver 215,000 units of plasma by July, 1942. Following Pearl Harbor this figure was upped by 165,000 units, bringing the total number to be delivered by July, 1942, to 380,000. For the year beginning July 1, 1942, the Army and Navy have requested the Red Cross to obtain an additional 550,000 units, making a minimum total of 930,000 units. To provide this total will require somewhat in excess of 1,000,000 donors, it is estimated.

According to a report covering the first year of operation issued by Dr. G. Canby Robinson, national director of the Red Cross Blood Donor Service, by the end of November, 1941, the Red Cross blood donor centers then participating in the program had collected and delivered to processing laboratories a total of 27,352 donations. Then came Pearl Harbor and the opening of additional donor centers. Immediately after, enrollment of donors jumped by leaps and bounds. Whereas in the ten prior months 27,000 blood donations had been given, the number of donations during December was 18,396! In January this figure was doubled, 37,109 donations being made. Collections in February, the shortest month in the year, totaled 53,780, and with the first two weeks in March reporting at a monthly rate of approximately 65,000, there is every prospect that the goals that have been set will be reached. However, the present rate of donations will have to be maintained without let-up, and may even have to be increased further, as there is the probability that additional amounts will be requested by the Army and Navy.

Red Cross blood donor centers are now in operation in the following cities: New York, Philadelphia, Baltimore, Buffalo, Rochester, New York, Indianapolis, Detroit, Pittsburgh, St. Louis, Boston, Milwaukee, Cleveland, Chicago, San Francisco, Los Angeles, Cincinnati, Washington, D. C., and Brooklyn. The last-named center began operations in mid-March.

According to the report, seven commercial laboratories have contracts with the government for processing plasma on a cost basis. The total number of donations during the first year of operations aggregated 82,857, of which 55,505 were made in the nine weeks of December and January.

The value of blood plasma in the treatment of burns and wounds and in combating shock was amply demonstrated at Pearl Harbor. Surgeons on duty there during the attack, and in the days following, state in no uncertain terms that many lives were saved due to the use of plasma supplied to the armed forces by the local medical society, the American Red Cross and other agencies.

HOW FREQUENTLY TO RELEASE TOURNIQUET

First aid students should be taught that "in case a tourniquet is applied for the control of arterial hemorrhage, it is wise to release the tourniquet for a few minutes at thirty minute intervals," *The Journal of the American Medical Association* for February 7 advises in answer to an inquiry. "If the extremity is packed in ice, this time-interval can be safely extended to one hour," it adds.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, February, 1942

DISEASES	*Feb. 1942*	*Jan. 1942*	*Dec. 1941*	*Feb. 1941*	*Feb. 1940*
Tuberculosis, Primary	5	16	0	0	0
Tuberculosis, Active	66	147	74	51	93
Tuberculosis, Arrested	11	8	5	0	0
Chickenpox	439	377	271	538	274
Measles	265	214	86	1107	26
Scarlet Fever	571	516	353	661	849
Smallpox	1	14	11	3	10
Typhoid Fever	6	8	6	7	15
Whooping Cough	182	222	92	85	149
Diphtheria	29	50	32	49	66
Influenza	136	210	116	412	1115
Pneumonia	79	104	79	139	142
Mumps	68	124	26	209	495
Poliomyelitis	2	6	3	1	1
Meningitis	3	3	2	3	1
Malaria	1	0	0	0	0
Rubella	9	6	3	0	0
Septic Sore Throat	1	0	0	0	0
Leprosy	1	0	0	0	0
Undulant Fever	2	2	2	3	1

DEPENDABLE PRODUCTS for PHYSICIANS

Pharmaceuticals, Tablets, Lozenges, Ampoules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled. Write for general price list.

Zemmer

Chemists to the Medical Profession
The Zemmer Company
Oakland Sta., Pittsburgh, Pa.
IN 5-42

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 JUNE, 1942 NUMBER 6

INTESTINAL OBSTRUCTION*

CONSIDERATION OF AN INFREQUENT TYPE OF MECHANICAL OBSTRUCTION OF THE SMALL INTESTINE RESULTING FROM HERNIATION OF THE BOWEL THROUGH AN APERTURE IN THE MESENTERY

J. S. ROBISON, M.D.

WINCHESTER

No surgeon can encounter a case of intestinal obstruction, resulting from herniation of the small bowel through an aperture in the mesentery, requiring massive resection without being confronted with some of the following questions: From the nutritional standpoint, how much bowel can be safely resected? What is the blood chemistry in a patient so critically ill? What is the best way to restore it? What type of operation gives the lowest mortality rate? What have been the experiences of other surgeons? Having recently seen a case in this group, I became interested in the subject and was prompted to review the literature.

Some definite observations have been made concerning this type of obstruction. Most writers believe that congenital defects are responsible for the development of mesenteric apertures through which the bowel may pass and become strangulated. Trauma also has been fairly well established as a possible cause. While inflammation is considered as a possibility in the development of this pathological condition, most observers hold the opinion that it is rarely, if ever, the direct cause of the condition. Another important observation has been made concerning the location of the mesenteric defects. In some of the cases reported no exact location of the apertures was noted. In a large percentage of the cases they were found in the mesentery of the terminal ileum. They have, however, been found in almost all portions of the mesentery of both the small and large bowel.

Attention is called to the fact that massive resection is likely to be necessary in dealing with this type of obstruction. After one loop of intestine has passed through an opening in the mesentery, the tendency is for more and more of the bowel to work itself through as the result of intra-abdominal pressure and peristalsis. Edwards[1] reports two cases; from one of which eighty-four inches of bowel were resected. Keyes and Middleman[2] removed two meters from their patient, and Elston's[3] patient required resection of seventy-six inches. Others report having found from three inches to nine feet of strangulated bowel.

As a result of the extensive involvement these patients become critically ill due to rapid changes in the blood chemistry. Therefore, the mortality has been high in the cases reported as having had primary resection. The importance of early recognition of obstruction and operation cannot be emphasized too strongly. In discussing Edwards'[1] paper, Dr. Owen H. Wangensteen states, "Although the mortality in strangulated hernia for this group is not high, the mortality when primary resection is done lies between forty and fifty per cent. Whereas primary resection can be done in dogs with a fair degree of safety for strangulations, recorded experience with primary resection in strangulated hernia stamps the procedure as unsafe. I feel rather strongly that, in cases in which a few feet of nonviable intestine must be excised, exteriorization and establishment of a complete external fistula, followed by secondary anastomosis at an opportune time, carries less risk for the patient. In unusual instances necessitating a high

* Read before the Randolph County Medical Society, Winchester, Indiana, September 10, 1941.

[1] Edwards, C. R.: Acute Intestinal Obstruction Due to Mesenteric Defects Requiring Massive Resection, *J. A. M. A.*, **xcix**:278, 1932.

[2] Keyes, E. L., and Middleman, I. C.: Treatment of Fistula and Obstruction of Small Intestine by Complete Exclusion, *Surg., Gynec, & Obst.*, **lxxii**:237, (Feb. 1) 1941.

[3] Elston, L. W.: Intra-abdominal Hernias with Case Report, *J. Indiana M. A.*, **xix**:157, 1926.

fistula, or an extraordinary sacrifice of intestine, it is better to assume the risk of primary resection."

It is interesting to note that exteriorization was not employed in many of the cases reviewed. Keyes and Middleman[2] recommend this method for the treatment of intestinal fistula and obstruction of the small bowel. They reported a case of acute intestinal obstruction in a Rabbi, aged seventy-one years. Exploration revealed a gangrenous loop of midileum which had herniated through a defect in the mesentery of another loop, thus becoming strangulated. The gangrenous bowel was treated by complete exteriorization. Ten weeks later a second operation was performed, closing the fistula. The patient recovered.

Harmer[4] reports a case of an Italian-American printer, thirty years of age, who was admitted to the hospital on March 19, 1927, complaining of cramp-like abdominal pain and vomiting. He had previously had occasional transient pain in the abdomen, not related to meals. He had had three enemata the day of admission, with no results. Board-like rigidity of the abdomen and symptoms of shock suggested peritonitis, or possibly intestinal obstruction. Operation was performed three days after onset of symptoms. Operation revealed about two feet of gangrenous small bowel that had herniated through an opening in the lower mesentery. The bowel was excised and a large rubber tube was sewed in each remaining end. About two months later the fistula was closed and an end-to-end anastomosis was done. A Witzel[5] enterostomy was done. There was some delay in recovery, but by November the wound was closed and the patient recovered.

McIver[6] reports the case of a male, aged thirty, whose past history was not remarkable. Three days before admission he was taken with severe lower abdominal cramp-like pain and vomiting. There had been no bowel movement for the past three days and enemas had been given without results. Physical examination revealed a critically ill patient. The pulse was 120, and there was board-like rigidity of the abdomen. The white count was 25,000. Immediate operation was carried out. The peritoneal cavity contained a turbid fluid with a foul odor. It was found that the small intestine had herniated through an opening in the lower portion of the mesentery. Approximately two feet of intestine were gangrenous. The loop of bowel was resected and the ends brought out through the abdominal wall. An end-to-end anastomosis was done at a later date. The patient recovered.

A very valuable method of treating the condition was employed by Watson,[7] who performed primary resection of the bowel, anastomosis, and also a Witzel[5] enterostomy proximal to the anastomosis. The patient recovered.

In cases in which the obstruction has been high and large amounts of the bowel have been removed, it is almost impossible to keep the patient's food requirements up to an adequate level if exteriorization has been performed. Therefore, it is more rational to employ some method of operative treatment that will be comparatively safe and also will insure a more normal and natural flow of the intestinal content. The employment of the Witzel[5] enterostomy and the Wangensteen continuous siphonage of the stomach seems to meet this requirement after resection and anastomosis. The Witzel tube comes away in three or four days and very little intestinal content is lost after that time, the fistula usually closing in ten days to two weeks.

Cases of bowel obstruction of this type are comparatively few. Doubtless many such cases are encountered but are not reported in the literature. Nevertheless, when one considers the many cases of obstruction from other causes that are reported, one is forced to the conclusion that apertures in the mesentery are an infrequent cause of herniation. Watson[8] states that in sixteen hundred autopsies an opening in the mesentery was found in three cases. Barnett[9] states, "Strangulation of the small intestine through an opening in the mesentery is an uncommon occurrence." Baty[10] says, "Of the uncommon varieties of internal strangulation of the bowel, probably that associated with a hiatus in the mesentery is the most seldom encountered and in consequence few cases are recorded."

In 1920, Brown[11] summarized twenty cases of this pathological condition, and in 1925, Cutler[12] tabulated data concerning these cases and also eight others. Elston[3] reported one case in 1926. In 1928, McWorter[13] reported a similar case in which the two ends of a bifid omentum had fused through an aperture in the mesentery, producing an obstruction in the jejunum. A portion of the omentum was resected and the aperture sutured. The patient recovered. Judd,[14] in 1929, reported a case in which a mesenteric defect was the cause of obstruction of the colon. The aperture was near the center of the mesentery of the small intestine,

[4] Harmer, T. W.: Internal Abdominal Hernia with Strangulation and Perforation, *Boston M. & S. J.*, **cxcvii**:1094, (Dec. 8) 1927.

[5] Witzel enterostomy described by Thorek in *Mod. Surg. Technic*, Vol. **3**: p. 1379.

[6] McIver, M. A.: Acute Intestinal Obstruction; Varieties, *Am. J. Surg.*, **xix**:581, 1933.

[7] Watson, J. R.: Acute Intestinal Obstruction Due to a Mesenteric Defect, *Ann. Surg.*, **cvi**:1097, (Dec.) 1937.

[8] Watson, J. J.: Review of Literature on Extensive Resections, *J.A.M.A.*, Vol. **84**: No. 6, p. 463.

[9] Barnett, S. W.: Hernia of the Jejunum through an Aperture in the Mesentery of the Small Intestine, *J. Iowa M. Soc.*, **xxiv**:202, (April) 1934.

[10] Baty, J. A.: Internal Strangulation Through an Aperture in the Mesentery, *Brit. M. J.*, **i**:671, (March 26) 1938.

[11] Brown, H. P., Jr.: Intraperitoneal Hernia of Ileum through Rent in Mesentery, *Ann. Surg.*, **lxxii**:516, 1920.

[12] Cutler, G. D.: Mesenteric Defects as a Cause of Intestinal Obstruction, *Boston M. & S. J.*, (Feb. 12) 1925.

[13] McWhorter, G. L.: Ends of Omentum Fused through Opening in Mesentery Producing Acute Intestinal Obstruction, *S. Clin. N. Am.*, **535**.

[14] Judd, J. R.: Mesenteric Defects, *Surg., Gynec. & Obst.*, **xlviii**:264, 1929.

and the terminal ileum and right colon had passed through the opening.

Other cases have been reported having this type of hernia and also various other forms of obstruction, such as strangulation in slits of the mesentery and mesocolon following gastro-intestinal surgical procedures. No attempt has been made to review the literature dealing with internal hernias following surgical procedures.

There is some difference of opinion as to the etiology and pathology which enter into the causation of mesenteric apertures, herniation, and the resultant obstruction. Cutler[12] reviews the opinions of several writers and states that Prutz thought these apertures were caused by inflammation. He concludes that if it were the cause, mesenteric defects would be more common after appendicitis.

King[15] reports the case of a woman, aged thirty years, who was admitted because of an attack of acute appendicitis. At operation the appendix was found to be inflamed and was attached to the inferior aspect of the mesentery of the last loop of the ileum. Difficulty was experienced in removing the appendix, for there was a bulbous portion of the tip which passed through a hiatus in the mesentery. In freeing the appendix the bulbous portion separated and was caught by a forceps. Examination of the end of the appendix showed that it was not open but that it apparently was the true tip. The mesentery was then turned over and the second last loop of the ileum was found attached to the mesentery at one point. With the forceps attached, strong traction brought out the invaginated portion on the other side. The mesentery in the region of the hiatus was curiously avascular and thinner although somewhat tougher than usual. The patient made an uninterrupted recovery. The inflammation of the appendix is considered the probable cause of the damage to the mesentery and the adhesion of the ileum.

Papouschek[16] describes in detail a case in which the etiology was tuberculosis. The patient was a farmer, aged sixty-six, who was admitted on April 4, 1935. His father and two siblings had died of pulmonary tuberculosis. Patient had suffered from pulmonary disturbances, with constant cough and discharge, for forty years; for the past twenty years suffered from a free reducible inguinal hernia; and for many years had occasional attacks of vomiting accompanied by diarrhea. During the last four years he had frequent attacks of violent, piercing pain in the lower abdomen. Earlier attacks always abated upon rest in bed. An attack of this sort occurred two weeks prior to death, accompanied by increasingly severe constipation. The family physician made a diagnosis of ileus and recommended operation, but the patient refused until the ileus became complete and persisted thus for three days before the operation was performed. The patient was in a greatly reduced nutritional state. When the peritoneum was opened the cavity discharged a somewhat hemorrhagic clear exudate. After partial eventration a snarl of loops of small intestine appeared. These loops were dark red, greatly distended, and covered with a fine fibrinous coating. It was found that at the point of transition of the jejunum to the ileum the mesentery showed a defect approximately twenty cm. long and ten cm. wide. It had white, irregular edges, and in the vicinity there were signs of a former inflammation in the form of connective tissue thickening of the mesentery. The aperture was bounded on all sides by mesentery which in many places showed rather large vessels. In the strip of mesentery between the intestine and the aperture there was a gland the size of a hazel nut embedded in the edge of the defect. The oral portion of the small intestine had slipped through this aperture twice and had formed a volvulus. The loops were carefully disengaged, drawn out, given salt solution lavage, and kept under observation for a time. The intestine soon showed good recovery and even slight peristalsis. The operation was confined to excision of the gland embedded in the edge of the defect and closure of the gap in the mesentery. A partial rent was found in the mesentery of the lower ileum, which was closed. In this region there were also a number of enlarged glands. The intestine was replaced in the abdominal cavity and the abdominal wall was closed in layers. Histological examination of the excised gland showed tuberculosis. The immediate course was satisfactory; gas and stool were passed normally, and the patient's appetite returned. On the fourth day grave pneumonia of the lower lobe set in, and the patient succumbed to it because of his poor general condition. Autopsy showed tuberculosis of the left apex, also about a dozen tuberculous ulcers in the lower ileum. Immediately above Bauhin's valve there were groups of tubercles in the mucosa.

Trauma has been accepted as a possible cause of the development of apertures in the mesentery. Injury to the abdomen frequently causes severe hemorrhage and thrombosis of the mesenteric vessels. This may result in an abnormal condition of the mesentery, producing a shortening at one point and stretching at another—thus forming a pocket which gradually becomes somewhat avascular and devoid of fat. The process continues until the very friable thin mesentery gives away, resulting in an aperture. Treves[17] has shown that small slit-like holes due to injury are present in the mesentery and also that congenital defects of the mesentery exist. He has shown that these defects are surrounded by an anastomotic arch be-

[15] King, E. S. J.: Intestinal Herniation through Mesenteric Hiatus, *Brit. J. Surg.*, **xxii**:504-506, (Jan.) 1935.

[16] Papouschek, E.: Tuberculous Etiology of Defects in Mesentery of Small Intestine, *Mitt. a.d. Grenzgeb. d.Med. u. Chir.*, **xliv**:299-306, 1936.

[17] Treves, G. A.: (In Piersol) *Human Anatomy*, J. B. Lippincott Co., p. 1759, 1919.

tween the ileocolic branch of the mesenteric artery and the last of the intestinal arteries; that the area is often the seat of atrophied peritoneum; and that fat, visible blood vessels and glands are absent.

Several cases have been reported with histories of injuries preceding their obstruction. In some of the cases the injury had been too remote to be definitely proved as being either a direct or contributing cause. Brown's[11] patient had sustained a fall. The case reported by Clark and reviewed by Brown had been run over by a trap. Deaver reported a case that might be considered in this class. A man was taken suddenly ill with pain while cranking his automobile. The pain was relieved in several days. Six months later, while again cranking his car, he was taken with severe cramp-like abdominal pain which did not subside. The patient died, and autopsy revealed a gangrenous loop of bowel strangulated in an aperture in the mesentery. This case also was included in Brown's review. Peretti's[18] case gave a history of injury to the right lumbar region ten months before onset of symptoms of obstruction.

Cammarano[19] reports the case of a man a little over fifty years of age who was hospitalized about twenty-four hours after a collision in which he was injured by having a heavy wheel pass over his abdomen below the umbilicus. The clinical examination showed a voluminous abdomen with ecchymosis below the umbilicus, marked tension, and a uniform muscular defense which could not be called board-like. Palpation did not reveal hyperperistalsis, spastic contraction or a state of paralysis of the intestines, yet it was felt that there was an acute obstacle to intestinal canalization. Operation was performed immediately, and on opening the peritoneum a small quantity of blood, partly coagulated and partly fluid, escaped. The intestines were markedly meteoric, and exploration showed that the trouble was due to incarceration of one of the terminal loops of the ileum in a longitudinal slit in the mesentery. The strangulated loop was flaccid, dark gray in color, and was resected for a distance of fifteen cm.; end-to-end anastomosis restored the continuity. The hole in the mesentery was sutured. There was difficulty in reducing the meteroized intestines into the abdominal cavity. The patient did well and appeared to be improving for the first day, but took a turn for the worse and in spite of all remedies he died on the third postoperative day. The grave abdominal trauma suffered by the patient caused only a mesenteric slit with lacerated and contused edges (approximately ten cm. in length), which, by occurring in the longitudinal and not the transverse sense, involved only small branches of the mesenteric artery and, therefore, did not threaten the patient's life by massive hemorrhage. For more than twelve hours the patient's symptomatology was scanty and not alarming. The incarceration of the ileum occurred secondarily.

Other cases have been reported by Dubs, Schloffer and Hirsch, and reviewed by Landois,[20] in which definite histories of injuries were considered as the cause of the defects in the mesentery.

Judd[14] believes that congenital defects are the cause in the majority of cases, and he is the only writer to offer an explanation for their occurrence. He points out that the researches of Mall show that between the seventh and tenth week of fetal life the greater portion of the intestine is forced from the abdominal cavity into the coelom of the umbilical cord by the rapidly growing liver. After the tenth week the intestine normally returns to the enlarged abdominal cavity. Judd believes that the opening in the mesentery is caused by pressure rather than an actual lack of tissue. The fact that the greater part of the gut is displaced from the abdominal cavity into the umbilical cord indicates that considerable pressure is required. If sufficient pressure were exerted against the colon, its position might be influenced; it might swing to the left of the small intestine instead of crossing the duodenum as it normally does. The pressure continuing as the intestine migrates into the cord might cause the colon to continue along the path of least resistance and gradually force its way through the delicate structure of the mesentery. The fact that nearly all the openings in the mesentery occur in the same position, that is, close to the ileocecal junction, makes Judd's explanation a likely one.

Cathcart[21] reports the case of a newborn infant who presented symptoms of intestinal obstruction, and roentgen evidence substantiated it. The infant was operated forty-five hours after birth, and a loop of bowel four cm. long was found in a gangrenous condition as a result of twisting the mesentery. The gangrenous bowel was resected and the baby recovered.

Machacek[22] reports the case of an infant four months of age who was operated for intussusception, which was relieved. The patient died and autopsy revealed a slit in the descending mesocolon, producing an aperture through which the upper jejunum had herniated and become strangulated.

In discussing Gatewood's[23] case, Dr. Reginald H. Jackson, Madison, Wisconsin, reported operating upon an infant two years of age who had been ill

[18] Peretti, L.: Abdominal Hernia of Small Intestine Strangulated in an Anomalous Diverticulum, *Rassegna internaz.di.clin.e.terap.*, **xv**:77-89, (Jan. 31) 1934.

[19] Cammarano, P.: Internal Strangulation of Intestine through Mesentery Following Abdominal Contusion; Case, *Riforma med.*, **xlix**:675-679, (May 6) 1933.

[20] Landois, F.: Strangulation of Bowel in Mesenteric and Mesocolic Openings, *Beitr. z. klin. Chir.*, **clxiii**:241-249, 1936.

[21] Cathcart, D. F.: Congenital Intestinal Anomaly in Newborn Infant, *Am. J. Dis. Child.*, **lv**:566-572, (March) 1938.

[22] Machacek, J.: Strangulation Ileus through Congenital Slit in Mesocolon and Subsequent Invagination, *Deutsche Ztschr. f. Chir.*, **ccl**:34-36, 1938.

[23] Gatewood, Dr.: Intraperitoneal Hernias through Mesentery Defects, *West. J. Surg.*, **xlii**:191, (April) 1934.

four days. Operation revealed a gangrenous intestine which had become strangulated in an aperture of the mesentery. The bowel was resected and the patient recovered.

Turk[24] reported a case in a female, aged twenty. Since early childhood she had experienced sensations of pressure in the right side in connection with forced movements. She also suffered from car sickness. Operation was done under the diagnosis of appendicitis; appendix was found to be only slightly inflamed. She had a good recovery, except for violent pain at the right on the third day and occasional temperature peaks. She was dismissed on the seventeenth day. On the following day she was readmitted because of violent pain, vomiting, sensitivity to palpation and because of defense musculaire. Operation revealed strangulation of loops of the small intestine in an aperture in the common ileocolic mesentery. The intestine was replaced and the aperture sutured. Recovery was complicated by further symptoms suggesting occlusion. A third operation revealed pneumatosis cystoides intestinalis. A tiny cecal fistula was created. Recovery was undisturbed. In this case the mesenteric aperture was undoubtedly due to developmental anomaly.

A great number of cases have been reported in young children and, while the authors have not stated they were congenital, nevertheless their histories of recurrent attacks of abdominal pain and distress would lead one to assume that they were congenital in origin. It would, therefore, seem logical to conclude that congenital defects are the causative factors in most cases.

Various types of apertures have been found. It would seem that in a majority of the cases the hiatus has been located in the mesentery of the terminal ileum. Openings of various sizes have also been found, ranging from 1 cm. to 10 cm. in diameter. Iognov[25] and Sindoni[26] report cases in which practically the whole mesenteric arch was open, resulting in very large apertures. Lang,[27] discussing Gatewood's paper, reported having seen three cases of obstruction associated with what appeared to be abnormal attachment of the root of the mesentery, the mesentery being attached at each end—leaving an arch with a large opening through which there was herniation of the small intestine. The symptoms of pain, vomiting and shock were strikingly indicative of obstruction.

The edges of the ring are usually thickened, and enlarged lymphatic glands are noted in the root of the mesentery at the point of the defect. Since many of the cases described point out the presence of the mesenteric arteries in the edges of the ring and that the arteries are covered by indurated, smooth peritoneum, care should be exercised in closing so as not to injure or ligate these vessels.

Ashhurst[28] briefly reports a case in which fourteen to eighteen inches of ileum were strangulated in an aperture of the mesentery, and that more bowel was prevented from passing further through the aperture by a Meckel's diverticulum. The patient was a boy, twelve years of age, who had fallen and hurt his hip. On the following day he ate a large quantity of grapes and chocolate cake, and soon developed pain and vomiting. Operation was performed three days after onset of symptoms and an end-to-end anastomosis done. The patient died three hours after the operation.

Bona[29] also reports an interesting case of mesenteric aperture combined with Meckel's diverticulum in a man, aged forty-four. The combination of several congenital anomalies in the same individual serves as an argument, the author thinks, in favor of the assumption that mesenteric rents are usually of congenital origin. In this case there was no history of trauma nor was there any sign of scar or inflammatory process, either recent or remote. In this case, therefore, the mesenteric aperture must be looked upon as congenital.

The gross pathology of the strangulated bowel is simply a process of tissue death due to obstruction of the blood supply. During the act of strangulation the venous supply is first impaired, which results in engorgement of the bowel wall. The arteries continue to deliver blood to the area after the venous return has been practically stopped. Therefore, a large amount of extravasation of the blood takes place both into the lumen of the bowel and into the peritoneal cavity. If the strangulation continues the usual process of tissue death, gangrene, perforation, and infection follows. The lumen of the strangulated bowel usually contains a large amount of dark bloody infectious liquid. Baty[10] in commenting upon the fatal outcome of his case suggests that possibly blood transfusions might have neutralized the highly toxic substances in the strangulated loop, which he believes may have caused the death of his patient. He believes that the blood chlorides had been adequately restored and wonders, if the contents of the strangulated loops were routinely aspirated, whether the prognosis would be better in other cases. (His case did not require resection.) Since some cases have recovered after massive re-

[24] Turk, H.: Obstruction by Strangulation of Intestines in Gap of Ileocolic Mesenterium Commune; Case, *Zentralbl. f. Chir.*, **lxvi**:244-248, (Feb. 4) 1939.

[25] Iagnov, Z., and Timus, G.: Transmesenteric Hernia; Two Cases, *Rev. de chir.*, Bucuresti, **xli**:254-258, (March-April) 1938.

[26] Sindoni, M.: Large Defect in Mesentery with Torsion and Strangulation of Intestine; Case, *Morgagni*, **lxxiv**: 891-892, (July 10) 1932.

[27] Lang, E. R.: Reports a Case of Intestinal Obstruction in a Newborn Infant from Hernia of the Lower Ileum through a Congenital Mesenteric Opening, *Tr. Chicago Path. Soc.* **12**:335, (June 1) 1927.

[28] Ashhurst, A. P. C.: Intraperitoneal Hernia of Ileum through Rent in Mesentery, *Ann. Surg.*, **li**:134, 1910.

[29] Bona, T.: Mesenteric Holes as Cause of Intestinal Obstruction, Combined with Meckel's Diverticulum and Cecum Mobile, *Zentralbl. f. Chir.*, **lxv**:144-147, (Jan. 15) 1938.

UNIVERSITY OF MARYLAND LIBRARY Founded 1813 SCHOOL OF MEDICINE

section, he implies that the sudden release of the highly toxic material into the normal bowel, and absorption, may have been a factor in the sudden collapse and death of his patient. His hypothesis was true only insofar as shock and other physical factors may have entered into the cause of death. A great amount of investigation has been given to this theory in various research works; among them may be mentioned the work of Gatch[30] and Williams.[31]

Chronic partial obstruction of the bowel may greatly influence the nutritional state of the patient. Loeb and Greenbaum[32] report a very interesting case of beriberi secondary to hernia of the mesentery. The patient was a male, thirty-nine years of age, who had had three operations upon the gastro-intestinal tract from May, 1925, until May, 1938. The operations performed were as follows: first, gastro-ileostomy; second, gastro-jejunostomy; and third, jejunojejunostomy. The patient had developed definite beriberi from the continual lack of absorption of Vitamin B_1. After receiving treatment for the avitaminosis for several weeks, together with blood transfusions, he was again operated in May, 1938. The obstruction was found about midway between the ligament of Treitz and the cecum. It was relieved and the three anastomoses were cut apart and the stomas closed, restoring the gastro-intestinal route to normal. The patient did well for a few days and then made an uncontrollable turn for the worse and died, eleven days after the operation, from peritonitis resulting from perforation of the stoma in the ileum.

The symptomatology in this type of obstruction is very little different from that produced by obstruction from other causes. The history of previous attacks of abdominal cramp-like pain and vomiting are occasionally noted. Williamson[33] states that an accurate diagnosis of this condition does not seem to be within the realm of possibility, but the acuteness of onset, the severity of pain, and vomiting should suggest acute internal strangulation or torsion of the bowel. Some observers have stressed the importance of injury. In some of the cases the onset of symptoms has followed the ingestion of large quantities of food. Ashhurst[28], Barnett[9], Baty[10], Cantin[34] and Darnall[35] in reporting their cases, have called attention to dietetic indiscretions. The onset is sudden and the patient becomes rapidly and critically ill. Generalized abdominal pain, cramping in character, is usually the first symptom. Vomiting soon follows, and the higher the obstruction, the earlier and more persistent is this symptom. The vomitus may consist of recently ingested food, and later become definitely fecal in character. Enemas may remove some fecal material and a small amount of gas from the colon, but usually the bowel is completely locked and frequently the enema solutions only add to the discomfort. Distension may not be present for a few hours; however, as the pathological process progresses this symptom becomes definitely more apparent. In children the outline of the coils of the intestine may be evident through the abdominal wall. The greatest amount of distension is noted in one of three main locations, depending upon the point of obstruction. If the obstruction is in the terminal ileum, the greatest amount of distension will be in the right lower quadrant of the abdomen. If it is high, involving the first part of the jejunum, the greatest distension will be in the left upper quadrant. If it is the mid-portion of the small bowel the distension is more likely to be in the epigastrium and around the umbilicus.

As a result of the continuous vomiting, pain, and the changes taking place in the blood chemistry, the patient presents rather early definite symptoms of shock. The pulse becomes rapid and weak. The skin is pale and clammy and the temperature is usually subnormal, or not greatly elevated, unless the condition has existed some time. Tenderness and rigidity are present over the entire abdomen and particularly over the point of obstruction. On examination some observers have been able to detect a definite mass upon palpation. The blood picture shows some degree of secondary anemia; however, the red cell count may be increased due to a reduction of the plasma volume. There is a leukocytosis, and the differential leukocyte count shows a shift to the left.

Changes in the blood chemistry are attributed either partly or wholly to dehydration. Water and electrolytes are available in the extracellular and intracellular fluids to meet the ordinary changes in the blood volume and composition. However, when the loss of water and electrolytes is prolonged without restitution the plasma volume diminishes sharply and the serum concentration is increased. There is a marked reduction in the chloride concentration and a corresponding rise in bicarbonate. Dehydration also causes an increase of tissue destruction, with resultant impaired kidney function. This combination of circumstances is largely responsible for the marked increase in the concentration of the nonprotein nitrogen of the blood. After the obstruction is relieved, the N. P. N. returns to normal. Another theory concerning the increase of the N. P. N. is that the kidney function is impaired by some circulating toxin that is produced in the

[30] Gatch, W. D.; Trusler, H. M., and Ayers, K. D.: Acute Intestinal Obstruction—Mechanism and Significance of Hypochloremia and Other Blood Chemical Changes, *Am. J. M. Sc.*, Phila., **173**:649-667, 1927.

[31] Williams, B. W.: Importance of Toxaemia Due to Anaerobic Organisms in Intestinal Obstruction and Peritonitis. *Brit. J. Surg.* Bristol, **14**:295, 322, 1926-27.

[32] Loeb, L. M., and Greenbaum, R. S.: Beriberi Secondary to Hernia of Mesentery, *J.A.M.A.*, **cxii**:1810-1814, (May 6) 1939.

[33] Williamson, J. C. F. L.: Internal Hernia through Congenital Aperture in Mesentery, Strangulation, *Brit. J. Surg.*, **xx**:684-685, (April) 1933.

[34] Cantin, Y.: Volvulus of the Small Intestine Herniated through an Abnormal Orifice in the Mesentery, *Lancet*, **i**:1216, (May 25) 1935.

[35] Darnall, W. E.: Hernia of Ileum through Rent in Mesentery, *Am. J. Obst. & Gynec.*, (Jan.) 1921.

obstructed loop of bowel. The urine is concentrated, highly colored, and shows some albumin. A few renal cells and granular casts, with some pus cells, are found microscopically.

The x-ray may be of some value in the diagnosis. Flat plates may be made while other tests are being performed. For obvious reasons opaque meals should certainly never be used. Both anteroposterior and lateral views are helpful. The lateral views are sometimes helpful in locating fluid levels and gas pockets. The anteroposterior views are made with the patient in both the prone position and lying on one side. The true anteroposterior films will frequently show the typical stepladder markings, produced by the distended loops of the small bowel. In massive strangulation very little gas or characteristic markings may be noted. The colon can usually be outlined from small accumulations of gas.

A discussion of the treatment of intestinal obstruction leads one into so many opinions and different technics that a complete review of the literature would cover a voluminous amount of material. The early recognition of the obstruction in this particular type is extremely important as a life-saving measure. Many of the cases reviewed have passed well beyond the twenty-four-hour period before operation was performed, thus necessitating resection of large amounts of bowel. Some, however, believe that intestinal obstruction is never an emergency. They advise hospitalization, decompression of the stomach by the Wangensteen method or the use of the Miller-Abbott tube which passes into the bowel and in many instances down to the obstruction. The blood chemistry is checked carefully and fluids are administered parenterally. Transfusions of whole blood, plasma, and particularly chlorides are given. This method will frequently change the entire clinical picture. One can hardly hope to completely relieve this type of obstruction by this method; however, the general condition of the patient may be definitely improved. The poor risk patient may be made a fair surgical risk, particularly if exteriorization is done, followed later by anastomosis.

It has been stated above that massive resection is likely to be necessary. The removal of large amounts of the small bowel most certainly will be a disturbing factor in the metabolism of the patient. Watson[8] reviewed the entire literature of extensive resection of the small intestine, analyzing seventy-three cases as follows:

In forty-one cases from 6 feet 7 inches to 9 feet 10 inches were resected.

In twenty-six cases from 9 feet 10 inches to 13 feet 2 inches were resected.

In six cases from 15 feet 8 inches to 17 feet 9 inches were resected. Of these seventy-three cases, six patients died of marasmus in from twenty-five days to two and one-half years. Of the six patients who died, the one with the largest resection lived the longest time, namely, two and one-half years.

The above figures give one an idea of the safety margin in resections. The human body has been amply supplied with intestines in a manner similar to kidney tissue, liver, lung, and other vital organs. It is advisable to conserve as much bowel as possible, but in doing a primary resection it is essential that all nonviable bowel be removed.

CASE REPORTS

Case I: White female, aged eight, entered the hospital January 7, 1941, at 11:00 A.M., complaining of pain in the abdomen and vomiting. The evening before admission to the hospital she had complained to her mother of being very hungry and ate an unusually large supper at 5:30 P.M. She had been in school all day and was as well as usual. About 6:15 P.M. she began complaining of pain in the stomach and soon vomited her supper. She continued throughout the night with intense abdominal cramping and vomiting. She was given five enemata during the night, without relief from the pain. There had been no bloody stools from the enemas. There was no history of any previous similar attacks and no history of injury. She had recently recovered from chickenpox; otherwise, she was about as well as the average child.

Examination revealed a young thin child who looked extremely ill. The temperature was 96; pulse, 140. Eyes, ears, nose and throat were normal. The chest was well formed and expansion was equal and good on both sides. Respirations were increased but not labored, and auscultation and percussion revealed no pathology in the chest. The upper abdomen was very obviously distended and abdominal breathing was diminished. Percussion note over the abdomen was flat. The entire abdomen was rigid, and rigidity was especially marked in the upper right quadrant. No definite mass was palpable; however, resistance was noted to the right of the umbilicus. Borborygmus was absent. Extremities were normal.

The blood analysis showed hemoglobin, 96.6%; red cells, 4,050,000; white cells, 14,300; lymphocytes, 28%; monocytes, 1%; polys, 66%; and bandforms, 5%. Kline test was negative. Roentgenograms presented no x-ray evidence of free gas in the abdomen. Small pockets of gas were noted over the course of the colon. There was evidence of fluid in the abdomen.

A diagnosis of obstruction of the bowels was made and immediate operation was performed. A right pararectus muscle incision, about 6 cm. long, was made. Upon opening the peritoneal cavity a large amount of bloody fluid was found and several loops of dark bowel came into view. A definite odor of putrefaction was noted. The loops of strangulated bowel occupied the upper portion of the abdomen. After some manipulation the entire mass of gangrenous small bowel was delivered outside the abdominal cavity. It was then evident that the strangulation was caused by the bowel having herniated through an aperture in the mesentery of

the small intestine. After passing through the opening the bowel had become twisted upon itself, resulting in strangulation. After some rather persistent effort it was found impossible to reduce the strangulated bowel through the opening without slightly enlarging the edge of the aperture at the root of the mesentery. The strangulated bowel was dark red and distended with fluid and gas to about twice its normal size. After releasing the strangulation no signs of circulation were evident, and resection was necessary. A *v*-shaped incision was made, the gangrenous bowel and involved mesentery were removed and a lateral anastomosis done. Eight feet of bowel were resected. A Witzel enterostomy also was done proximal to the anastomosis, the original incision being used for the exit of the tube. A small Penrose drain was placed in the peritoneal cavity at the site of the anastomosis. The incision in the abdominal wall was closed in layers.

The opening in the mesentery, through which the bowel had passed, was located in approximately the middle portion of the ileum. The opening was about 3 cm. in diameter and was roughly circular in shape. The edges of the aperture were smooth and showed no evidence of recent injury. Some enlarged lymphatic glands were noted in the root of the mesentery near the aperture. Other portions of the mesentery showed no lymphadenitis. A great many of the blood vessels in the mesentery near the obstruction showed marked thrombosis.

Immediately following the operation the patient's general condition was fair. She was given a transfusion of 450 cc. of citrated blood, which was followed by an intravenous of 5% glucose in salt solution. The first day after the operation her condition was fairly good, the pulse and temperature continuing rather high. There was some distension and stomach siphonage was started. The total intravenous fluids for the first twenty-four hours was 4,000 cc., with 1,000 cc. urine excreted. The total serum protein was 12 grams per 100 cc. The plasma chlorides (as NaCl.) were 42.9 mgms. per 100 cc. of blood. On the second postoperative day the temperature range was about 102 degrees and the average pulse 140 per minute. The enterostomy tube was draining well and was being irrigated every two hours with sterile salt solution. She was given another transfusion of 450 cc. of citrated blood. On the fourth postoperative day her general condition was satisfactory and she was beginning to manifest interest in things about her. There was no distension of the abdomen, and the stomach and enterostomy tubes were functioning satisfactorily. The total serum protein was 7.6 grams per 100 cc. of blood. On the fifth postoperative day the abdomen was soft and flat, and the return from the stomach was small in amount and clear; therefore, the siphonage was discontinued. The pulse and temperature were lower and the patient was feeling improved. She was given 250 cc. of citrated blood and immediately developed a very extensive and disturbing urticaria. The donor had eaten a large breakfast containing considerable fats. Adrenalin was administered with prompt relief. On the sixth postoperative day the enterostomy tube was lying loose in the dressings, and a profuse yellow sour liquid drainage was present on the dressing. The patient was beginning to take a liquid diet. She had a small yellow stool. By the tenth day the patient's general condition was good; she was taking a restricted soft diet; and there was very little leakage from the abdominal wound. Patient was dismissed from the hospital in good condition on the twenty-first postoperative day.

Six months after the operation her general condition was good. The bowels were regular and she was taking no cathartics. She was eating a regular diet and enjoying all activities with her playmates, and was also doing well in school. Her weight was sixty pounds, which was a gain of about ten pounds from the time she was first weighed after her operation. Even though a large amount of bowel was sacrificed, there was no evidence of malnutrition at the time of her last examination.

Case II: Male, twenty years of age, was admitted to the hospital at 1:00 A.M., December 29, 1941, complaining of severe abdominal cramping and vomiting. In the early morning of the day before admittance he had taken a dose of Epsom salts because he did not feel well. He had very little results from the salts. In the evening, about two hours after supper, he was suddenly taken with a severe abdominal cramping pain, became nauseated and vomited several times. His family physician was called, who had him admitted to the hospital. He gave a history of having previous similar attacks but not as severe. There was no history of injury.

The general physicial examination was essentially negative. The abdomen was scaphoid in shape and very marked rigidity was noted over the entire abdomen. Tenderness was thought to be most marked over the lower right quadrant. No masses were palpable. Some borborygmus was heard. The blood count showed 4,570,000 red cells, 15,300 leukocytes, with a total of 93% polys. The urine was normal.

A diagnosis of acute appendicitis was made and immediate operation performed. The abdomen was opened through a McBurney incision. A large amount of turbid bloody fluid escaped. There was an odor of putrefaction. Neither the cecum nor any loops of small bowel could be seen through the McBurney incision, but at the upper portion of the incision a cyst-like mass, which was grayish black in color, could be seen. The McBurney incision was closed and another incision was made along the left side of and near the umbilicus. Examination through the latter incision revealed an interesting pathology. The right colon had failed to rotate and was lying internal and anterior to the descending

colon. The entire small bowel had passed through an aperture in only the posterior layer of the mesentery of the small bowel at the point where it crosses the spine. The small bowel having entered this aperture and crowded the anterior layer up and to the right gave the appearance of a cyst. There was a very marked inflammatory process of the last loop of bowel that had just entered the aperture. Some recent adhesions between the bowel wall and the mesentery were noted. The bowel at this point showed some congestion and a few rather dark spots about 1 cm. in diameter, but for the main the entire bowel circulation was good and no resection was necessary. The small intestine was withdrawn from the sac described and the aperture sutured. While there was acute inflammation of the bowel at the point of strangulation, yet there was no evidence that any injury had produced the aperture. The fact that the colon had not rotated to the normal position would indicate that the pathology was the result of a congenital deformity. No attempt was made to correct the position of the right colon. The appendix was removed. The postoperative course was uneventful except that he was unable to retain food, and stomach siphonage was necessary for a period of eleven days. He was discharged in good condition on January 12, 1942. His family physician reported on February second that he was well and free of symptoms.

SUMMARY

1. Intestinal obstruction from mesenteric apertures is an unusual type of obstruction.

2. Massive resection is likely to be necessary in these cases.

3. The mortality is high unless early operation is performed.

4. In order of importance the causative factors in the production of mesenteric apertures are: (1) congenital defects, (2) trauma, and (3) inflammation.

5. Exteriorization of the obstructed loop, resection and formation of a double-barrel fistula, followed later by anastomosis, is favored by most writers. In high massive resections primary resection and anastomosis, aided by the Witzel enterostomy, gives the patient a fair chance, other things being favorable.

6. Even though a large amount of bowel must be sacrificed in some of the cases, marasmus may be avoided by giving careful attention to dietetic measures and vitamin therapy.

111½ S. Main Street.

ABSTRACT

ELECTRIC ACTIVITY OF BRAIN MAY INDICATE FLYING ABILITY

The possibility that the electroencephalogram may be used as an indicator of fitness of candidates for flying instructions is advanced by Melvin Thorner, M.D., Randolph Field, Texas; Frederic A. Gibbs, M.D., and Erna L. Gibbs, Boston, in the current issue of *War Medicine*, published bimonthly by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council.

"A group of 109 aviators," the authors say, "half of whom were military student pilots and half of whom were experienced pilots, was studied in order to determine if there are correlations between flying ability and the electroencephalogram. . . ."

It was shown in this preliminary study that flying ability can be correlated with certain readings. However, the three authors make the following qualifications:

"The number of cases on which this study is based is too small to allow the exact predictive value of electroencephalography to be determined, but the data suggest that if correct criteria are used it may be possible to select a superior group of candidates for flying instruction, with a resultant reduction in the proportion of failures and an increase in the proportion of superior fliers.

"There is no immediate prospect that an electroencephalographic examination will be used as part of the routine Army examination for flying training, but further work on this subject is in progress."

As an example of the importance of a test that might reveal the mental functioning of an individual, the authors point out that mental dysfunctions associated with epilepsy "may impair mental function without being obvious either to the subject or to the observer. For example, a man with unrecognized petit mal seizures may keep writing through a short attack, perhaps making a '9' instead of a '0' and not realize that he has had a seizure. He may be annoyed later, if he discovers his 'carelessness,' or he may be discharged from his job because of 'inexcusable errors.' In such a case, an electroencephalogram would show the true nature of the trouble. Since errors are even less permissible in an aviator than in an accountant, the elimination from flying instruction of persons with seizure patterns in their electroencephalograms would appear to be a sensible precaution. . . ."

They point out that previous studies of the inheritance of epileptic conditions show that "unless electroencephalography is used in selection, some men with [potential] mental conditions are certain to be found in any large group of candidates for flying instruction."

Annual Meeting
of the
AMERICAN MEDICAL ASSOCIATION
Atlantic City
June 8-12, 1942

THE PROPHYLAXIS OF POSTOPERATIVE THROMBOSIS AND PULMONARY EMBOLISM

H. D. COGSWELL, M.D.*
WHITING

The cause of postoperative venous thrombosis and embolism thus far has not been definitely proved. It is generally agreed, however, that one of the greatest predisposing causes is a retardation of the venous blood flow.[1, 2, 3] This is due for the greater part to two factors: lessening of the excursions of the diaphragm, thus diminishing the negative intrathoracic pressure which ordinarily aspirates the blood into the large veins of the thorax; and lack of muscular contractions and tone, which pump the venous blood to the right heart. Both of these factors are common postoperatively, as pain, anesthesia, intestinal distention, etc., are conducive to muscular and respiratory inactivity. Potts[4] observed 728 patients who underwent major surgical procedures and carried out routine breathing and muscular exercise. In none of these did thrombophlebitis or embolism occur. During the same time he followed 112 adult patients with fractures, who were immobilized in plaster casts. In this series there were five cases of pulmonary embolism. From these observations he deduced that postoperative exercises were beneficial in preventing venous stasis from which thrombus formation results. To substantiate this view he measured the changes in the blood volume flow through the inferior vena cava of dogs after elevation of the lower extremities, muscle contractions, and increased depth of respirations. An increase varying from 100 to 150 per cent in the blood volume flow was noted. From these observations it appears that deep breathing, muscular exercises and elevation of the lower extremities are of value in increasing the venous blood flow, and prevent thrombus formation by "washing out any accumulation of blood elements which might lead to beginning formation of thrombi."[5] The clinical importance of these findings is paramount when it is recalled that "the deep veins of the lower leg must be regarded as the most common site of origin of venous thrombosis."[6]

Venous thrombi usually form in one of four areas:[7, 2, 8] (a) the plantar veins, (b) the veins of the muscles of the calf, (c) the veins of the adductor musculature, and (d) the visceral pelvic veins. Frykholm[9] has postulated that when a patient is confined to bed the veins in any or all of these four areas are collapsed and pressed together so that the intimal layers are in close contact. He believes that this results in injury to the intima, which is important in the pathogenesis of a thrombus. If this hypothesis is correct, it is an important link in the chain of events leading to the thrombo-embolic syndrome, for it has never been clearly shown why merely slowing the venous blood flow should precipitate thrombus formation. Assuming that this is true, the trend of events would be as follows: the arterial and venous blood volume flow is retarded, and the endothelial cells of the intima are compressed and injured, bringing about a fundamental condition for the formation of a thrombus. Continued inactivity of the patient allows the development of the thrombus, which in turn breaks loose in the form of an embolism. If, however, the volume of blood flow is increased by muscular and deep breathing exercises, the blood elements present for thrombus formation are diluted and move along the venous system before a thrombus is formed.

We have for the past few years made clinical observations similar to those of Potts' and are convinced that postoperative deep breathing and leg exercises have a definite prophylactic value in preventing thrombosis and embolism. Beginning January 1, 1939, all of our major postoperative cases were instructed to move frequently. Most of the patients were asked to flex the feet and legs, and to make pedaling motions. It was often observed that exercises were not being accomplished in any efficient or complete manner. This occurred for several reasons; some patients would refuse to exercise because of pain, lassitude, or indifference, and some nurses would be lax in supervising these exercises. In many cases the patient and the nurse would overestimate the amount of postoperative exercise taken. A large number of the cases were uneducated Mexicans who did not understand English well, and this may have accounted for a portion of the poor co-operation. This routine was continued until May, 1940. During this

* From The Whiting Clinic, Whiting, Indiana.

[1] Potts, W. J.: Pulmonary Embolism, *Ann. of Surg.* Vol. **111**:554, 1940.

[2] Belt, T.: Thrombosis and Pulmonary Embolism, *Amer. Jour. Path.* Vol. **10**:129, 1934.

[3] Decourcy, J. L.: Venous Stasis as Cause of Postoperative Embolism: Its Prevention by Use of Reverse Fowler Position After Lower Abdominal Operations, *Anesth. and Anal.* Vol. 8:342, 1929.

[4] Potts, W. J.: Pulmonary Embolism: Clinical and Experimental, *Ann. Surg.* Vol. **113**:1084, 1941.

[5] Potts, W. J.: Pulmonary Embolism, *Arch. of Surg.* Vol. **42**:661, 1941.

[6] Fine, J., and Sears, J. B.: The Prophylaxis of Pulmonary Embolism by Division of the Femoral Vein, *Ann. of Surg.* Vol. **114**:801, 1941.

[7] Hunter, C. W.; Sneeden, V. D.; Robertson, T. D., and Snyder, G. A.: Thrombosis of the Deep Veins of the Leg, *Arch. of Int. Med.* Vol. **68**:1, 1941.

[8] Frykholm, R.: Pathogenesis in Venous Thrombosis and Mechanical Prophylaxis. *Nord. Med. (Hygiea)* Vol. **4**:3534, 1939.

[9] Frykholm, R.: The Pathogenesis and Mechanical Prophylaxis of Venous Thrombosis, *Surg. Gyn. and Obst.* Vol. **71**:307, 1940.

period of time 320 patients had major surgical operations. Two cases of thrombophlebitis and two cases of pulmonary embolism occurred in the group.

It was obvious that this system of enforcing exercises was not satisfactory, and it seemed that some method of improving and measuring the exercises would give better results. A pedaling apparatus was devised[10] which elevated the lower extremities and gave the patient definite, measured, muscular exercise. The idea of pedaling in bed was not original as Payr,[11] Gamble[12] and de Takats and Jesser[13] had previously recommended devices using the same principle. The pedals which we constructed had the advantage of being easily transported (Fig. 1), were readily applied and removed from the bed (Fig. 2), and stable when being used, so that there was no possibility of the apparatus slipping and throwing unexpected strain on the patient. The heel plates prevented tension on the abdominal muscles, elevated the lower extremities, and there were no complaints of discomfort with the use of this apparatus. All of our adult postoperative patients who had undergone major surgery used these pedals three times a day, beginning on the morning of the first postoperative day. The first time the patient performed the exercises the pedals were used for five to ten minutes. By the second postoperative day the exercises were increased to fifteen minutes, without fatigue. During the period of "pedaling" the patients took deep breathing exercises. By giving the patient something more definite to do, to aid in his recovery, we received good co-operation with no exception. This apparatus was first used on May 1, 1940. From this date until July, 1941, 403 adult patients who were confined to bed because of major surgical operations used this device routinely. None of these patients developed thrombophlebitis or pulmonary embolism. An observation made in conjunction with this procedure was that muscular exercises apparently stimulated peristalsis and greatly diminished gas pains. It is also believed that patients were able to ambulate sooner and had more strength on first walking than those patients who had not had the benefit of exercise. To prove these impressions would be difficult, but patients in the latter group who had had previous surgery when the pedals were not used give weight to our impressions.



Fig. 1. Method of transporting the apparatus from bed to bed. Its weight is approximately twelve pounds. The transverse bar above the center may be placed inside the ends of the bed for fixation. This obviates the need for an attendant while exercising.



Fig. 2. Apparatus in place over end of bed. Orderly's foot on foot brace, giving firm stabilization. Note the heel plates attached to the pedals, which give the feet support—allowing relaxation of the abdominal muscles.

Since the amount of exercise is limited on the day of operation, other measures were taken to prevent stagnation of circulation. On returning from surgery the patients were placed in the Trendelenburg position from four to six hours. This not only accelerated the return flow of blood from

[10] Cogswell, H. D., and Thomas, C. A.: An Apparatus for the Prevention of Postoperative Stagnation. *Surg.* Vol. **10**:323, 1941.

[11] Payr, E., Quoted from Christopher: Minor Surgery, ed. 4, W. B. Saunders Co., Philadelphia, 1940.

[12] Gamble, H. A.: Prevention of Postoperative Embolism and Phlebitis, *Amer. Jour. of Surg.* Vol. **28**:93, 1935.

[13] de Takats, Geza, and Jesser, J. H.: Pulmonary Embolism, *J.A.M.A.* Vol. **114**:1415, 1940.

(The illustrations used in this article have been reprinted from the August, 1941, issue of Surgery, through the courtesy of The C. V. Mosby Company.)

the extremities, but allowed better drainage of the tracheobronchial secretions. No pillows were allowed under the knees or between the thighs. The bed was not "broke" in the middle but was left straight. Constant attention must be given to these details, as nurses often feel that to be industrious they must stick pillows somewhere about the anatomy of the patient or raise the head of the bed. Until the patients could move themselves they were turned from side to side every hour. It is important that exercises be started as soon as possible after surgery, as Hunter et al. have shown by postmortem examinations, instances of thrombus formation within three days after the beginning of recumbency. For this reason it is advisable to have patients perform exercises preoperatively if they are to be confined to bed for any length of time. Individuals with a pulse below sixty and some older lethargic patients have been given thyroid extract;[14] whether or not this is of value I do not know. No heparin was administered to any of these patients to prevent thrombus formation. It has merit, no doubt, but it was too expensive for routine use in this series.

It is of interest to note that the two instances of pulmonary embolism (1939-1940) occurred in patients with pulmonary tuberculosis. These patients had been bedfast in a sanitarium for almost a year. They had acquired a habit of lying quietly in bed, and could not be encouraged to move about even to a small extent. One of these patients was reoperated upon for the re-occurence of a hernia during during the second period (1940-1941) and used the pedals faithfully. No embolism occurred. One case of thrombophlebitis occurred in the same institution in a patient who had co-operated poorly in exercising and had been bedfast for six months. The second case of thrombophlebitis occurred in a patient who had been ill for an extended period of time with pneumonia and an empyema. Due to the severity of his illness no exercises were prescribed until late in his convalescence, following a rib resection. We have recently had a case of postoperative pulmonary embolism. This occurred in October, 1941, during an interval when no pedals were available. This patient, on his ninth postoperative day following a subtotal gastric resection, showed all the clinical signs of a sublethal pulmonary embolus. He had been instructed to exercise, but because of bilateral, congenitally dislocated hips and a reluctance to move actively in bed did but little exercising.

During the second period (1940-1941) there was no difference in the type of patient operated upon, no change in the operative technic, and the operations were performed in the same institutions as in the first period (1939-1940). The only factor that was altered was that the patients of the second group were given specific measured exercises. In the first series the exercises were given and taken rather haphazardly. From these observations it seems apparent that elevation and measured exercises of the legs, postoperatively, are most important in preventing thrombosis and embolism.

[14] Walters, W.: A Method of Reducing the Incidence of Fatal Postoperative Pulmonary Embolism, *Surg. Gyn. and Obst.* Vol. **50**:154, 1930.

ABSTRACT

REPORT ON ACTION OF SULFANILAMIDE IN TREATMENT OF GAS GANGRENE

By means of a dye with a special affinity for the cells of the blood which help combat disease, Benjamin Kropp, Ph.D., and Dorothy G. Smith, M.A., Kingston, Ontario, Canada, have been able to shed some light on the question of how sulfanilamide and its derivatives produce beneficial effects in their use for treating gas gangrene. The two investigators report their findings in the September-October issue of *War Medicine*, published by the American Medical Association, Chicago, in cooperation with the Division of Medical Sciences of the National Research Council, Washington, D.C.

"A condition observed and commented on by almost all investigators of the microscopic picture of gas gangrene infection," the two authors say, "is the notable absence of a typical inflammatory reaction at or near the site of the lesion. While the conditions described vary apparently with the duration of the infection, the species of germ responsible, the virulence of animal, etc., there seems to be almost general agreement that the mobilization of blood cells which have phagocytic properties is delayed or inhibited in the presence of the toxin of the gas gangrene organism. Whether the action of the toxin on these cells is confined to antimigrational effects or affects also in some direct way their longevity, their genesis or their ability to encompass foreign particulate matter is not certain."

The investigations by the two authors consisted of administering an anesthetic to 14 guinea pigs and then introducing into a wound on the thigh the germ most commonly found in gas gangrene. Into the wound in 8 of the animals sulfanilamide also was introduced at the time of infection.

Animals of both the control and the experimental series were given sterile doses of the dye, trypan blue, under the skin. The amount given was just sufficient to turn the skin pale blue. Particles of the injected dye were taken up or absorbed by the cells the investigators were seeking to study and thus were stained so they could be observed in contrast to other cells.

From their investigations the authors conclude that "the toxin of the gas gangrene germ rapidly attacks and destroys subcutaneous connective tissue and phagocytic cells present in the connective tissue, and the organisms and toxin spread chiefly along connective tissue planes.

"The accumulation and phagocytic activity of blood cells and other phagocytic cells at the wound site are inhibited by the toxin of the germ of gas gangrene."

Sulfanilamide, they say, introduced into the wound in the presence of experimental gas gangrene in the guinea pig partially overcomes the inhibitory action of the infection on the migration of the various cells of the connective tissue as well as the ability of certain cells to ingest or engulf the germ of the infection.

A MODERN METHOD OF MANAGING ACUTE APPENDICITIS WITH RUPTURE AND GENERALIZED PERITONITIS

WILLIAM C. REED, M.D.*
GEORGE E. LEONE, M.D.*
BUFORD WORD, M.D.*
CAMP SHELBY, MISSISSIPPI

On January 13, 1941, the first appendectomy at the Station Hospital, Camp Shelby, Mississippi, was performed. During the next twelve months (to January 13, 1942) a total of 479 diseased appendices was removed. Of this number sixteen were found to have ruptured prior to operation, and generalized peritonitis of varying extent and severity was in progress. From these figures it is readily seen that 3.3 per cent of all appendicitis cases of such severity as to warrant operation were found to be perforated. Even under ideal conditions, from a medical point of view, this figure appears quite high, as the modern soldier has immediate access to adequate medical care at any time. "Purgation and delay" have been taught to all medical students during the past decade as the greatest factors in causing perforation of the inflamed appendix, and it would seem that in instances where the surgeon has absolute control of the patient the rupture of an appendix would never be allowed. However, perforation does occur under ideal conditions, and "purgation and delay" are still the major factors in producing the perforation, for ten out of the sixteen cases reported herein admitted purgation, and the time interval between onset of symptoms and operation was, on the average, three days.

Ashhurst, as quoted by Ravdin et al,[1] states that the problem of acute appendicitis is the problem of its complications. This statement has been found quite true with the cases handled at this hospital during the past year, as the 463 patients who were operated prior to rupture of their appendix returned promptly to full military duty within a reasonable period of time, and those with rupture were the ones who caused the greatest concern to the attending surgeon.

The mortality of acute appendicitis with perforation and generalized peritonitis varies with the different series reported in the literature. Jackson and Perkins[2] reported one hundred cases of perforated appendicitis, with a mortality of 12 per cent. Miller, Fell, Brock and Todd[3] treated 281 cases by immediate operation, with mortality of 12.8 per cent, and in the 179 cases of acute appendical peritonitis reported by Barrow and Ochsner[4] the mortality was 27.3 per cent. Burke and Kuhn[5] reported 83 cases, with mortality of 15.6 per cent. Thompson, Brabson and Walker,[6] in handling 116 cases between 1935-1940, had a mortality of 11.2 per cent without the use of sulfanilamide. However, in 1940 the same authors poured sterile sulfanilamide powder into the abdomen of thirty-one similar cases at operation and no death occurred in this group. Bower[7] obtained his figures from the first state-wide survey of acute appendicitis in Pennsylvania and reported a mortality of 24.35 and 24.06 per cent in cases of localized peritonitis and spreading peritonitis, respectively. Nassau, Lorry and Pulaski,[8] in a thirty-six year survey of 4,650 cases, reported a mortality of 17.6 per cent in the perforated cases with peritonitis. Mason's[9] mortality for this condition is 10 per cent. Cafritz[10] reported forty-six cases of ruptured appendix which were operated upon without a death. It is also interesting to note that none of the cases in Cafritz's series were drained, and the points advanced by the author in favor of nondrainage are upheld by our experience in handling the cases encountered at this station during the past year, as none of our cases were drained.

* From the Surgical Service of the Station Hospital, United States Army, Camp Shelby, Mississippi, where their positions are as follows: Chief, former chief and assistant chief, respectively.

[1] Ravdin, I. S.; Jonathan, E. R., and Lockwood, J. S.: The Use of Sulfanilamide in the Treatment of Peritonitis Associated with Appendicitis, *Annals of Surgery*, **3**:53 (Jan.) 1940.

[2] Jackson, A. S., and Perkins, R.: Reducing the Mortality of Perforated Appendicitis—A Study of 100 Cases, *American Journal of Surgery*, **49**:250, 1940.

[3] Miller, E. M.; Fell, E. H.; Brock, C., and Todd, M. C.: Acute Appendicitis in Children, *Journal American Medical Association*, **115**:1239, 1940.

[4] Barrow, W., and Ochsner, A.: The Treatment of Appendical Peritonitis, *Journal American Medical Association*, **15**:1246, 1940.

[5] Burke, John, and Kuhn, Horace F.: The Treatment of Acute Appendicitis in a Municipal Hospital, *Surgery, Gynecology and Obstetrics*, **72**:578, 1940.

[6] Thompson, James E.; Brabson, John A.; and Walker, John M.: The Intra-Abdominal Application of Sulfanilamide in Acute Appendicitis, *Surgery, Gynecology and Obstetrics*, **72**:722, 1941.

[7] Bower, John O.; Hyperacute Perforation of the Acutely Inflamed Appendix, *Surgery, Gynecology and Obstetrics*, **73**:123, 1941.

[8] Nassau, C. F.; Lorry, R. W.; and Pulaski, E. J.: Treatment of Appendicitis at Frankfort Hospital—A 36-Year Survey of 4,650 Cases. *Archives of Surgery*, **42**:296, 1941.

[9] Mason, M. L.; Allen, H. S.; Queen, F. B.; and Gibbs, E. W.: A Review of 1,000 Consecutive Appendectomies. *Quarterly Bulletin Northwestern University Medical School*, **15**:1, 1941.

[10] Cafritz, Edward A.: A Newer and Safer Technique in the Management of Appendicitis with Perforation, *Medical Annals District of Columbia*, **9**:197-202, (June) 1940.

Hunt[11] has stated that the mortality of acute perforated appendicitis in the United States is 18 per cent, which is very close to the correct figure if all of the cases were averaged for the past few years.

J. Gordon Dees,[12] at the John Gaston Hospital in Memphis, and R. Sterling Mueller,[13] at the Roosevelt Hospital in New York, were among the first to employ sulfanilamide powder locally in the treatment of diffuse peritonitis, appendical in origin. Dees first used this method in November, 1939, and Mueller in January, 1940. Since that time reports are found scattered throughout the literature, advocating its local use in this serious complication and quoting a lower mortality rate than was obtained without its use by the same authorities; Dees'[12] mortality of 4 per cent, by using sulfanilamide intra-abdominally; Thompson et al,[6] thirty-one cases, no deaths; McGehee,[14] forty-eight cases with a mortality of 6.2 per cent, by using sulfanilamide locally at operation. Mueller and Thompson at the Roosevelt Hospital, between January 10, 1940, and January 5, 1942, used sulfanilamide locally in 133 peritonitis cases, appendical in origin, without a death.

When we first began the use of sulfanilamide intra-abdominally, we found that it was very difficult to sterilize. It would cake when autoclaved, and when used would spread with difficulty over the abdominal contents. Thompson and his co-workers have described a very valuable method of sterilizing sulfanilamide powder without changing its physical properties. They place 5 Gms. of the drug in a test tube with a cotton plug in the end, and then place it in a dry oven at 120° C. for one-half hour. The powder undergoes no physical change and spreads over the abdominal contents very evenly when used. We have used this method with no untoward effects since April, 1941. Mueller and Thompson[15] have varied the above method slightly by baking the powder with dry heat for two hours at 140° C.

Operation and sulfanilamide powder intra-abdominally does not complete the care that our perforated cases receive. We feel that other measures employed in the postoperative treatment are equally as important, when the indications arise.

We operate upon all cases as soon as the diagnosis is suspected and other conditions ruled out. The appendix is removed and the pus present withdrawn by gentle suction. No effort is made to do an improper operation by trying to determine the extent of the peritonitis. Five grams of sterile sulfanilamide powder is placed in the peritoneal cavity over the area where the greatest amount of pus is withdrawn and 2½ Gms. sprinkled in the abdominal incision after the peritoneum is closed. The abdomen is then closed in layers, without drainage. The patient is sent to the recovery ward where he receives fluids by vein, massive doses of sulfathiazole by mouth, small repeated blood transfusions, Wangensteen suction, and oxygen freely by placing the patient in an oxygen tent. If the patient remains on intravenous fluids unduly long, he is given vitamin B and nicotinic acid to prevent avitaminosis. All of the above measures are not employed in every case, nevertheless the patients are under constant observation and at the slightest indication any or all measures are employed.

No definite drug reaction has been noted from the use of sulfanilamide and sulfathiazole, except cyanosis. Hyperpyrexia, tachycardia, leukocytosis, and evidence of hepatitis were not noted in any of the cases. We feel that cyanosis alone is no reason to discontinue the drug, as it is better to have a blue patient than a dead one. In the cases that developed cyanosis and those that developed abdominal distention, oxygen appeared to afford striking relief. Others who have used oxygen in the treatment of patients with gaseous distention of the intestinal tract with favorable results are: Mason,[16] Ochsner,[17] Fine, Sears and Banks[18] and Wangensteen.[19] Rosenfeld and Fine[20] state that the physiological basis for the improvement noted in the distended patient when oxygen is supplied freely is due to the exclusion of nitrogen from the inspired air and the migration of nitrogen from the intestinal tract to the outside of the body, via the lungs, in accordance with the partial pressure gas law that governs the diffusion of gases through a semi-permeable membrane.

The following is a typical case report and is similar to any one of the other fifteen included in the chart hereinbelow.

CASE REPORT

Pvt. G. D. S., aged 24, Hospital Register No. 12,834, was admitted to Station Hospital, Camp

[11] Hunt, Verne C.: The Management of Acute Perforated Appendicitis, *Surgery, Gynecology and Obstetrics*, **73**:507, (Dec.) 1941.

[12] Dees, J. Gordon.: A Valuable Adjunct in Perforated Appendices, *Mississippi Doctor*, **18**:215, (September) 1940.

[13] Mueller, R. Sterling: Use of Powdered, Crystalline Sulfanilamide in Surgery, *Journal American Medical Association*, **116**:329, (January 25) 1941.

[14] McGehee, I. L.: Advances in the Treatment of Acute Peritonitis of Appendiceal Origin, *The Mississippi Doctor*, p. 488, (Feb.) 1941.

[15] Mueller, R. Sterling, and Thompson, James E.: The Local Use of Sulfanilamide in the Treatment of Peritoneal Infection, *Journal of American Medical Association*, **118**:189, (January 17) 1942.

[16] Mason, J. M.: Personal communication, December 24, 1941.

[17] Oschner, Alton. Personal communication, December 15, 1941.

[18] Fine, Jacob; Sears, J. B.; and Banks, B. M.: The Effect of Oxygen Inhalation on Gaseous Distention of the Stomach and Small Intestine, *American Journal of Digestive Diseases*, **2**:361, (August) 1935.

[19] Wangensteen, Owen H.; Annals of Internal Medicine, **12**:987, (December) 1939.

[20] Rosenfeld, Louis, and Fine, Jacob: The Effect of Breathing 95 per cent 02 upon the Intro-Luminal Pressure Occasioned by the Gaseous Distention of the Obstructed Small Intestine, *Annals of Surgery*, **108**:1012, (December) 1938.

Shelby, Mississippi, at 9:20 A. M., June 24, 1941, with a chief complaint of abdominal pain. He stated that about 1:00 P. M., June 23, 1941, he developed generalized abdominal pain, was nauseated, but could not vomit. The pain was so severe that it "drew him up in a knot." The pain continued and about 8:00 P. M. he began to vomit, but without relief. The patient vomited about twelve times between 8:00 P. M. and midnight. About the time that vomiting occurred he also developed diarrhea. Between 8:00 P. M. on June 23, 1941, and 3:30 A. M., June 24, 1941, he had five or six loose bowel movements, the stools becoming progressively liquid. At 3:30 A. M., June 24, 1941, the pain became easy and the patient went to sleep, but was awakened again at 7:00 A. M., June 24, 1941, "hurting more than ever." He reported to his regimental dispensary and was sent directly to the hospital.

The soldier denied any urinary symptoms or difficulty in respiration. The family history and past medical history were not remarkable. Examination on admission to this hospital revealed a well-developed, well-nourished white male, lying quietly in bed, apparently not suffering acute pain. On physical examination nothing remarkable was noted except the abdominal examination which revealed exquisite tenderness and rigidity of the muscles over the right lower quadrant; rebound tenderness and contralateral tenderness were also present. There was some tenderness in the left flank on deep palpation and moderate rigidity. Exaggeration of the pain in the right lower quadrant was noted when the right leg was extended and abducted. On admission temperature was 101.4, pulse 88. The ward surgeon's impression, after preliminary examination, was (1) appendicitis, acute, or (2) gastro-enteritis, acute. Blood count on admission was W.B.C. 24,300, Polys. 75 per cent. One hour later the blood count was W.B.C. 21,950, with 57 per cent Polys. Urinalysis was essentially negative. At 1:00 P. M. the patient was seen by the members of the surgical staff. All were of the opinion that the patient had an emergency surgical condition and advised immediate operation. The consensus was that he had a gangrenous appendix.

Operation was performed immediately, using 10 mgs. nupercaine as a spinal anesthetic. The abdomen was opened through a muscle-splitting McBurney incision, and free pus was encountered as the peritoneal cavity was opened. The appendix was easily located and was found to have a perforation one inch from its base, about the size of a pencil eraser, with free pus oozing from the orifice of the perforation. About a teacup of frank pus was aspirated from the peritoneal cavity after which the appendix was removed, using chromic 0 to ligate the meso and base of the appendix. The stump was inverted with a black silk purse-string suture. Five grams of sterile sulfanilamide powder were spread over the inflamed area of peritoneum. The abdomen was closed in layers, without drainage, and patient returned to the ward in satisfactory condition. He was placed in Fowler's position and sulfathiazole by mouth, grs. 15 Q four hours, was ordered, also glucose 1,000 cc. t.i.d.

The postoperative clinical course was very stormy. On June 26, the second postoperative day, abdominal distention became quite pronounced, temperature 104, pulse 140. Wangensteen suction was instituted, blood transfusion was given, sulfathiazole continued, and patient placed in oxygen tent.

"June 27, 1941—Patient improving.

"June 28, 1941—Temperature 99. Patient is hungry and very much improved. The abdomen is soft. To continue oxygen, sulfathiazole, and intravenous glucose.

"June 30, 1941—Patient continues to improve. Removed from seriously-ill list and placed on bland diet. Had first bowel movement this morning. Removed from oxygen tent.

"July 2, 1941—A.M. Patient continues to run low grade temperature, 99 to 100. Slight abdominal tenderness generalized.

"July 2, 1941—8:00 P.M. Patient's temperature 103.6 following a chill, pulse 100, weak and thready, W.B.C. 23,400 with a differential count of 86 per cent Polys. Patient's general condition looks bad. His lips are blue and a circumoral pallor is present, abdomen also distended. Oxygen begun, Wangensteen suction apparatus reinserted, and blood transfusion of 500 cc. given.

"July 3, 1941—Patient's general condition improved. Temperature 99. Patient feels better. Only moderate distention.

"July 4, 1941—Patient continues to improve. Sutures removed this date, and wound appears to be healing by primary union.

"July 10, 1941—Wound dressed this date. Has healed by primary union. Patient continues to run low grade temperature.

"July 14, 1941—Sulfathiazole discontinued this date.

"July 20, 1941—Patient afebrile for first time today.

"July 25, 1941—Patient continues to improve. Afebrile for past five days. Ambulatory at this time.

"July 31, 1941—Patient discharged to duty this date."

Pathological diagnosis: Appendicitis, acute, purulent, with perforation.

We have attempted to list in concise form in Table I the preoperative and postoperative clinical course of each of the cases of ruptured appendix seen at this hospital since its organization.

DISCUSSION

We have used sterile sulfathiazole in the peritoneal cavity in only two cases. Nevertheless, according to Rhea,[21] it may prove to be more

[21] Rhea, Charles E.: The Problem of the Treatment of Peritonitis—Preliminary Report, *Surgery, Gynecology and Obstetrics*, **73**:193, 1941.

TABLE I

Name and Hospitol Register Number	Age	Durotion of Symptoms Prior to Operation	Date of Operotion	Nausea	Vomiting	Diarrhea	Purgative	Blood Picture	Type of Incision	Amount of Sulfanilamide Ploced in Abdomen	Anesthetic	P. O. Treatment	Wound Healed	Hospital Doys
1. Skaggs No. 4233	28	6 days	2-18-41	0	0	0	0	13800 90% Polys.	Rt. Rectus	6 Gms.	Spinal	Sulfathiazole by mouth	Slight Infection	42
2. Miller No. 5426	20	2 days	2-25-41	Yes	Yes	0	Yes (Castor oil)	19250 83% Polys.	Rt. Rectus	20 Gms.	Spinal	Wangensteen Sulfathiazole by mouth	Primary Union	17
3. McCord No. 5383	23	7 days	2-28-41	Yes	0	0	0	15250 77% Polys.	Rt. Rectus	30 Gms.	Spinal	Blood Wangensteen 02	Slight Infection	40
4. Sholter No. 6825	22	30 hrs.	3-12-41	Yes	Yes	0	Yes (2 Cascara Pills)	15000 86% Polys.	Rt. Rectus	12 Gms.	Spinal	Wangensteen Sulfathiazole by mouth	Primary Union	21
5. Gray No. 7004	20	30 hrs.	3-14-41	Yes	Yes	0	0	13500 78% Polys.	Rt. Rectus	16 Gms.	Spinal	Sulfathiazole by mouth	Primary Union	21
6. Besecker No. 7943	21	6 days	3-27-41	0	0	0	Yes (Peach Juice & Soda)	12500 70% Polys.	Rt. Rectus	16 Gms.	Spinal	Sulfathiazole by mouth	Primary Union	21
7. Jay No. 9496	25	2½ days	4-22-41	Yes	Yes	Yes	Yes (2 Black Pills)	18000 85% Polys.	Rt. Rectus	10 Gms.	Spinal	Sulfathiazole by mouth	Primary Union	24
8. Porter No. 11,602	23	66 hrs.	5-27-41	Yes	0	0	0	14500 83% Polys.	Rt. Rectus	7½ Gms.	G.O.E.	Blood, 02 Sulfathiazole by mouth Wangensteen	Severe Infection	7½ mo.
9. Swan No. 12,834	24	24 hrs.	6-24-41	Yes	Yes	Yes	0	24300 75% Polys.	McBurney	5 Gms.	Spinal	Blood, 02 Sulfathiazole by mouth Wangensteen	Primary Union	37
10. Lukovic No. 14,528	25	24 hrs.	7-25-41	Yes	Yes	0	0	14950 92% Polys.	McBurney	5 Gms.	Spinal	Sulfathiazole by mouth	Primary Union	15
11. Reyling No. 14,601	18	2½ days	7-27-41	Yes	Yes	Yes	Yes (Castor oil)	20700 86% Polys.	Rockey	7½ Gms.	Spinal	Blood, 02 Wangensteen Sulfathiazole by mouth	Slight Infection	23
12. Barnard No. 15,240	26	2 days	8-7-41	Yes	Yes	Yes	Yes (Castor oil)	26300 81% Polys.	Rockey	7 Gms.	Spinal	Sulfathiazole by mouth, 02	Slight Infection	46
13. McVea No. 20,324	22	7 days	10-17-41	Yes	Yes	Yes	Yes (Castor oil)	14930 93% Polys.	Rt. Rectus	7½ Gms. Sulfathiazole	Spinal	Blood, 02 Sulfathiazole by mouth Wangensteen	Broke Open	72
14. Albritton No. 23,713	22	24 hrs.	12-22-41	Yes	Yes	0	Yes (From drug store)	12300 84% Polys.	McBurney	7½ Gms.	Spinal	Sulfathiazole by mouth Blood, 02	Slight Infection	40
15. White No. 24,152	19	40 hrs.	1-4-42	Yes	Yes	0	Yes ("Two tablets")	11500 73% Polys.	McBurney	7½ Gms. Sulfathiazole	G.O.E.	Sulfathiazole by mouth	Primary Union	15
16. Messang No. 24,292	28	42 hrs.	1-6-42	Yes	Yes	0	Yes (3 Laxative cold tablets)	16200 91% Polys.	McBurney	7½ Gms.	Spinal	Sulfathiazole by mouth	Abscess	In hospital now

effective in the treatment of peritonitis than sulfanilamide. Sulfathiazole is supposed to be less toxic to the liver than sulfanilamide, but from our small group of cases, no comment as to which is more efficacious is justified. Ochsner[22] cites two cases of optic atrophy following the use of sulfathiazole intraperitoneally.

Serious postoperative complications were observed in only four cases, namely, 3, 8, 13, and 16. In Case No. 3 hypoproteinemia had developed prior to operation. Gatch[23] has compared the symptoms of a widespread peritonitis with those of a widespread cutaneous burn and states that they are identical. He says, "There is a loss of blood protein in each case caused by the toxic effect on

[22] Ochsner, Alton: Abstract of Discussion of Papers of Drs. Mueller and Thompson, and Drs. Jackson and Coller, *Journal of American Medical Association*, **118**:199, (January 17,) 1942.

[23] Gatch, W. D.: Acute Perforated Appendicitis in Childhood, *Surgery, Gynecology and Obstetrics*, **73**:508, (December) 1941.

the endothelium of the blood capillaries, which permit the escape of the blood protein into the tissue spaces." In only one of our cases did we note the condition of hypoproteinemia described by Gatch. The following symptoms, in addition to those of an acute abdomen, were present prior to operation: Cyanosis, tachycardia, slight generalized edema, burbling rales throughout the chest, with patient lapsing into a euphoric state. McGehee[14] did plasma protein determination on a number of his cases and found that in many instances it had dropped to less than 50 per cent. He recommended daily transfusion of 500 cc. of blood, to keep the blood proteins up to a normal level.

Before operation Case No. 3 appeared to be moribund. At operation a quart of purulent material was aspirated from the peritoneal cavity, and a large fecalith, the size of a peach kernel, was found floating free in the peritoneal cavity. The patient's condition was so alarming that a transfusion was given while the operation was in progress, which explains the large amount of sulfanilamide (30 Gms.) that was used in this case, as shown in Table I. It was felt that an eleventh hour gesture to forestall death was justified. During the patient's convalescence no toxic effects of the drug were noted. After a stormy postoperative course the patient made a satisfactory recovery, and returned to full military duty in forty days.

A fistula of the terminal ileum developed in Case No. 8 and persisted for five months, at which time the fistula was resected through a McBurney incision, leaving the cutaneous portion to become occluded by granulation. When the peritoneum was opened during the second operation on October 27, 1941, five months after the original operation, the peritoneum was found to be shining and glistening. No evidence of a previous inflammatory process was present. A small flexible fistulous tract extended from the terminal ileum to the center of the right rectus incision. This case compares favorably with the cases mentioned by Jackson and Coller,[24] who state that sulfanilamide powder may actually lessen the formation of scar tissue in the peritoneal cavity following severe infection.

In Case No. 13 the operative wound erupted on the tenth postoperative day. A secondary closure was done on the twenty-third postoperative day. On the twenty-fifth day the patient developed pain and a palpable mass in the left lower abdominal quadrant, also chills and fever. The next day (twenty-sixth postoperative day) a purulent diarrhea was noted. X-ray plate taken after barium enema was given revealed barium outside the sigmoid in the region where the mass palpated previously, in the lower left quadrant, was located, and thus established the complication as an abscess of the left iliac fossa which eroded into the sigmoid and drained spontaneously. According to Barrow and Ochsner[4] location of an abscess in the left iliac fossa usually occurs in children or individuals who have a shallow pelvis. Operative intervention is seldom necessary, as the abscess usually drains spontaneously through the rectum, and that is what happened in Case No. 13 in our series.

Case No. 16 is in the hospital at the present time. The soldier was operated January 6, 1942. His immediate postoperative course was not eventful, as it was not necessary to administer blood transfusion, oxygen, or even insert the Wangensteen suction apparatus. Although the patient continued to run low grade fever, a mass did not become palpable in the rectum until January 24, 1942, and about the same time a mass became palpable beneath the abdominal incision. On January 26 the abdominal mass became fluctuant and was incised through the original operative wound. About a half teacup of purulent material was obtained. The sterile gloved finger was inserted and all pockets were probed. The finger was inserted down to the peritoneum, which appeared to be closed. On bimanual examination by means of a finger in the operative wound and one in the rectum, the rectal mass did not appear to have any connection with the operative wound, furthermore the rectal mass was noticeably non-tender and only slightly soft. No definite point of fluctuation could be found. The patient's general condition is satisfactory at this time, and the rectal mass is being watched daily for the development of a definite point of fluctuation.

Spinal anesthesia is the anesthetic of choice, for the abdomen is usually quieter and its contents are not churned around so much as when a general anesthetic is used. If pus is suspected within the abdomen, it is likely to be spread over the abdominal content by the retching and deep breathing of the patient when he is being inducted under the anesthetic.

The McBurney or Rockey incisions have given best results in our hands, and are used by the majority of the surgeons quoted in this article.

Ochsner,[22] Cafritz,[10] Gatch,[23] Ward,[25] and Rumbold[26] are the leading proponents of non-drainage of the peritoneal cavity, and our experience parallels theirs in the small series we are reporting. We feel sure that the hospital stay of many of the cases has been shortened, and that a number of these men have been salvaged for the

[24] Jackson, Howard C., and Coller, Frederick, A.: The Use of Sulfanilamide in the Peritoneum, *Journal of American Medical Association*, **118**:194, (January 17) 1942.

[25] Ward, R.: Appendicitis with Complication—A Reduction in Mortality Due to the Use of Continuous Gastro-Intestinal Decompression (Wangensteen Suction), *Western Journal of Gynecology and Obstetrics*, **48**:469, 1940.

[26] Rumbold, L.: Some Factors in a Lowered Mortality Rate for Acute Appendicitis—Analysis of 2,013 Consecutive Cases. *Archives of Surgery*, **42**:25, 1941.

Service by nondrainage of the operative wound. We have had quite a number of men appear before our Board of Medical Officers for a discharge from the Army on certificate of disability because a wide, thin scar was present on the abdominal wall as a result of drainage following operation for a ruptured appendix, and many have been found unfit for full military duty because of this condition.

SUMMARY

There is no single medicine or procedure that will insure the patient's recovery if his appendix is allowed to rupture before it is removed. Although not as good as operation before rupture, the careful use of sterile sulfanilamide powder poured into the peritoneal cavity following gentle removal of the appendix, sulfathiazole by mouth postoperatively, small repeated blood transfusions, continuous intragastric suction, and oxygen freely, has greatly improved the chances of recovery in a patient who fails to avail himself of surgery before perforation has occurred.

Since the above article was submitted for publication, we have operated upon five additional cases of appendicitis with rupture and generalized peritonitis. All recovered. The technic on the last few cases has been altered slightly from that described above in that at operation the peritoneal cavity is gently lavaged with small amounts of a suspension (10%) of sulfanilamide water, 50 cc. at a time, before the sterile powder is placed therein. The wound is also washed thoroughly with the same solution after the peritoneum has been closed. We feel that by washing out the peritoneal cavity with sulfanilamide water, pockets of pus will be reached that are not accessible to the dry powder. By washing the wound after the peritoneum has been closed, a small amount of sulfanilamide powder is required in the operative wound, causing less "wound reaction" to occur. The only other change is that of administering chemotherapy postoperatively. We have found that the blood concentration of the drug can be maintained at an optimum level at all times if administered by hypodermoclysis.

ABSTRACTS

JOURNAL WARNS AGAINST ISSUANCE OF CERTIFICATES TO PROSTITUTES

Any local, municipal system that encourages the giving of certificates to prostitutes that they are free from the venereal diseases "trifles not only with the health of its civilian population but also with that of the Army and Navy," *The Journal of the American Medical Association* for April 18 warns in an editorial on "The Venereal Disease Problem in War." According to available scientific evidence, such certification is worthless.

The Journals says:

"Invariably in past wars there has been an increase in the rates for the venereal diseases. The Annual Report of the Surgeon General of the United States Army for the fiscal year 1941 shows that the venereal disease rate increased in the recent prewar period of mobilization from 29.6 per thousand men in 1939 to 42.5 per thousand men in 1940.

"Infected persons in the civilian population, particularly prostitutes, are links in the chain of infection of the armed forces with syphilis and gonorrhea. Frequently the venereal disease rate in the Army and Navy is comparable to the incidence and prevalence of syphilis and gonorrhea in the civilian population in the area in which the armed forces are located. Therefore the civilian program for control of venereal disease must be maintained at the optimum effective level during war.

"The War Department is preparing to meet this problem. A venereal disease control officer will be assigned to each corps area headquarters to stimulate work against venereal disease. Furthermore, army venereal disease control officers will be appointed to each command with a strength of more than twenty thousand men. These new control officers will work with health departments and other civilian agencies. Attempts will be made to examine all contacts with infected men and to treat those who are found infected. The program will also include the strengthening of prophylactic measures, the provision of more adequate physical inspection to detect venereal diseases early, improvement in methods for the diagnosis and treatment of infected military personnel, provision of additional recreational facilities in cooperation with other military agencies, and intensification of the educational program.

"A cardinal principle of epidemiology in the control of communicable diseases is limitation of the number of contacts between infected, potentially infected and healthy persons. This principle applies in syphilis and gonorrhea as much as it does in other communicable diseases. Already there is evidence that some physicians have placed in the hands of irresponsible prostitutes certificates with the connotation that these women are free from the venereal diseases. The scientific evidence available indicates that certification of this kind is worthless. Any local, municipal system that encourages such certificates trifles not only with the health of its civilian population but also with that of the Army and Navy."

WARNING ON "ATHLETE'S FOOT" TREATMENT

Until the conclusion of studies to determine the extent of the causticity of a mixture of phenol and camphor, recently hailed as "A Working Cure for Athlete's Foot," and its possible benefits and dangers, "treatment of 'athlete's foot,' ringworm and other fungous infections [with this mixture] or any other potent remedies is best intrusted to the qualified physician," *The Journal of the American Medical Association* warns in its May 9 issue. It has been warned that the mixture should not be applied to a wet skin since water has been reported to make it caustic.

Pointing out that most cases of fungous infection require persistent skillful attention if the disease is to be brought under complete control, *The Journal* says that "Recommendation that untrained people use on themselves an agent which has the potential danger of causticity is highly doubtful."

TOBACCO INTOXICATION

BYRON KILGORE, JR., M.D.
DANVILLE

The pleasurable although toxic habit of the use of tobacco constitutes one of the most formidable public health problems of all times. It is the object of this paper to show that the accumulative injurious effects of tobacco addiction far outweigh any fleeting pleasurable sensations.

Tobaco was a word in use by the natives of Haiti in the fifteenth century, and it designated a wooden tube used for snuffing and smoking tobacco. The plant belongs to the family Solanaceae, other members of which are the tomato, potato, red pepper, and the Jimson weed (stramonium). The generic name of tobacco is Nicotiana, and of the fifty-some species only two, N. tabacum and N. rustica, are used commercially. The former is produced principally in the United States and the latter in India, Asia Minor, and Russia. Many varieties of these two species exist and are blended into commercial products. The present normal production in the United States is 1,302,463,000 pounds, grown on 1,719,700 acres in some fifteen states. Only about one-third of this is exported.[1]

There are many constant features of acute and chronic tobacco intoxication which make it possible to describe a clinical entity. Certain confusing minor variations in the effects of tobacco in humans can best be understood when the many diverse factors involved in tobacco use are thoroughly analyzed.

Factors which cause variations in the toxicity of tobacco fall into three main groups, namely: (1) differences in the tobacco; (2) circumstantial or intermediate factors; and (3) human variables.

Differences in the tobacco are quantitative and qualitative. The approximate quantity of tobacco in commercial units is: (1) Cigarettes, regular, 1 gram; extra long, 1.2 gram; hand rolled, ½ to 1½ grams. (2) Cigars, regular, 7 grams; Italian and stogies, 3-5 grams. (3) Chewing tobacco, 2-ounce plugs, 1¾- and 3¼-ounce sacks. (4) Pipe tobacco, 2-ounce packages and ½- and 1-pound containers. (5) Snuff, 1⅜ ounces. (6) Betel nut chew of Orient, varies according to individual likes. Each unit may not be entirely consumed, such as in cigar and cigarette use in which only ¼ to ¾ of the unit is smoked.

Qualitative variations in tobacco depend upon the variety of tobacco and the soil and climate in which it is grown, how it is cured (air, flue, or fire), and how it is further processed and blended. The addition of aromatics, sweetening, menthol and hygroscopic agents[2] all affect the quality. Important differences occur in the nicotine and arsenic content and deserve consideration.

All tobacco on the American market contains arsenic, many in quantities fifty times greater than that allowed in foods by the Pure Food and Drug Laws.[3,4] The presence of arsenic in tobacco has resulted from the continued use of lead arsenate by the growers to kill the hornworm parasites, despite the fact that the United States Department of Agriculture has for several years recommended that cryolite be used in its stead. Washing spoils American but not Turkish tobacco. Barksdale[4] found that nine brands of cigarettes average 0.042 to 0.0495 mgm. of arsenic per cigarette, two brands of cigars 0.08 and 0.088 mgm., respectively; snuff 2.60 mgm. per 100 grams, chewing tobacco 1.6 mgm. per 100 grams, smoking tobacco 4.0 mgm. per 100 grams, and untreated tobacco (no insecticide) contained no arsenic.

The nicotine content of tobacco units depends upon the type and curing of the leaves. Cigarettes made from domestics contain 2.27 to 2.5 per cent nicotine, Orientals .44 to 1.16 per cent, "denicotinized" 1.10 per cent, and hand-rolled, low-priced tobacco 2.63 per cent.[5,6] Cigars and other forms of tobacco contain proportionate amounts. In an average of twenty medium-priced American cigarettes there were 23.83 mgm. of nicotine per cigarette, and 11.91 was left in the stub after smoking.[6] This concentration in the unburned portion makes stub-smoking, as practiced by hoboes and some thrifty smokers, more injurious than using fresh units. Black Leaf 40, a commercial insecticide, contains 40 per cent nicotine alkaloids, and a minimum fatal dose is one to four drops.

Menthol in cigarettes is apparently harmless, although persons have told me of a peculiar puckering sensation of the nasal mucosa, which they have experienced after using a mentholated brand. They claim that its continued use is more irritating than non-mentholated brands. The average menthol per cigarette of four brands was found to be 1.64 mgm., and the calculated amount absorbed from twenty cigarettes would correspond to the quantity of menthol in four to seven cough drops, or about 14 mgm.[7]

[1] Encyclopedia Americana: Tobacco, American Corp., 1940.

[2] Sollmann, T.: A Manual of Pharmacology, 6th Ed. 398-411, W. B. Saunders Co., 1942.

[3] Hollis, C. B.: A Consideration of Certain Respiratory Phenomena Resulting from the Use of Tobacco, *The Weekly Roster and Med. Dig.* **34**:1080-81, (April 15) 1939.

[4] Barksdale, E. E.: Cutaneous Manifestations from Tobacco, *J.A.M.A.* **115**:672-675, (Aug. 31) 1940.

[5] Crampton, C. W.: The Cigarette, the Soldier and the Physician, *Military Surg.* **89**: (July) 1941.

[6] Pierce, I. H.: The Absorption of Nicotine from Cigarette Smoke, *J. Lab & Clin. Med.*, 1322-25, (May) 1941.

[7] Haggard, H. W., and Greenberg, L. A.: Concentration of Menthol in the Smoke from Mentholated Cigarettes, *Arch. Otolaryng.* **33**:711-716, (May) 1941.

Paper used in cigarettes is non-toxic.[42] Ashless filter paper cigarettes evoke no physiologic response.[8]

Circumstantial or intermediate factors which influence the degree of tobacco intoxication are (1) mechanical devices, (2) gaseous concentrations, and (3) coincidental arsenic intake. Mechanical devices include cigar and cigarette holders, cigarette filter holders, pipes, and hookahs. All types of holders favor more complete combustion of the unit and thus tend to increase the amount of toxic substance absorbed. Cigarette filter holders use either a cigarette or a cartridge of silica gel as a filter.[9] The makers of the former type claim that 70 per cent of the nicotine is removed from the smoke, and in the latter type 60 per cent. The chemistry laboratory of the American Medical Association confirms this last assertion, but goes on to say that the filtering efficiency falls rapidly with use.[9] At any rate, the 20 per cent of additional combustion allowed would partially offset any filtering advantage. A clean long-stemmed pipe which provides a trap or absorber for the saliva is the safest type. Saliva in which the condensation products of numerous smokings are dissolved is quite toxic when swallowed. A long stem allows a greater condensation to noxious materials than a short one. Short stems become hotter than long ones, depending in part upon the substance from which the stem is made. This heat is of etiological significance in cancer of the buccal cavity.[10] A hookah is a water-pipe in which the smoke is filtered through rose water. It provides the safest method of tobacco use, but is used the least.

Gaseous concentrations, especially carbon monoxide and oxygen, are very important in influencing toxicity in smokers. All such smoke contains carbon monoxide, and the concentrated fumes in a confined space might readily result in carbon monoxide poisoning. A familiar example is the drowsiness and headache resulting from exposure to an after-dinner program in a room blue with smoke. Many automobile accidents might be attributed to this form of intoxication. Barach et al.[11] have found that aviators who smoke require more oxygen at a lower altitude than non-smokers. Cigarette smoke yields 1 per cent carbon monoxide, pipe 2 per cent, and cigar 6-8 per cent.[9] Five puffs a minute for an hour would produce a blood concentration of 22 per cent. Fast smoking and rapid combustion increase the carbon monoxide content of smoke. Reik expressed the opinion that carbon monoxide is probably a more dangerous and injurious constituent of the smoke than nicotine. This might be true where individuals are exposed to additional quantities of carbon monoxide. Of 156 officers employed in the Holland Tunnel, where the carbon monoxide concentration averaged 70 parts per million of air, non-smokers showed only 1.71 per cent blood saturation, whereas smokers averaged from 4.1 per cent to 5.35 per cent in accordance with the number of tobacco units used.[12]

Coincidental arsenic intake in a tobacco user may produce, by summation effect, severe arsenic poisoning. Additional arsenic might be obtained through a diet rich in fish foods. Commercial glucose, sheep dip, certain hides, fruit sprays, etc., might furnish more of this substance.[13] Persons under treatment for syphilis and receiving arsenicals have developed typical dermatitis upon the concomitant use of commercial tobacco products. Home-grown, arsenic-free tobacco did not evoke this response, but resumption of the commercial goods did.[4] Fowler's solution must be considered in this regard. Emphasis should be placed upon this phenomenon of summation of otherwise harmless quantities of both arsenic and carbon monoxide.

Human variables in tobacco intoxication are so numerous that only the more important ones can be mentioned. Children do not tolerate tobacco well because of the small body weight and rapid respiratory rate. Women seem to be actually more sensitive, in addition to the fact that their average body weight is less than men's. I know of no racial idiosyncrasies or excessive tolerance. Healthy persons stand the drug better than sick individuals. Sympathetic, hyperevolute, or linear types do not as a rule show as much tolerance as the parasympathetic, short, stolid persons. Variations in the respiratory apparatus, such as size of the mouth (determines volume of a puff), respiratory rate, and vital capacity are all important in smokers. Juice swallowing, depth of inhalation, and many other individual variations in technic of administration of the drug enter into the picture. Blood loss renders a patient more sensitive to tobacco.

Cigarette-smoking deserves special consideration, for it is the most prevalent and popular form of addiction. Cigarette consumption in the United States rose from 123 billion in 1930 to 183 billion in 1940. An additional 12 per cent gain was noted for the four months ending April, 1941, over a similar period in 1940.[5] Such a gain, if maintained, would have resulted in a total of about 205 billion in 1941, i.e., 2,500 cigarettes a year for every man, woman, and child over fourteen years of age. This latter gain is directly attributable to the present war. During World War I soldiers smoked 50 per

[8] Moyer, C. A., and Maddock, W. G.: Peripheral Vasospasm from Tobacco, *Arch. Surg.* **40**:277-285, (Feb.) 1940.

[9] Segal, H. L.: Cigarette Smoking: I. As a Cause of Fatigue; II. Effect Upon Ekg. With and Without Use of Filters, *Am. J. M. Sc.* **196**:851-856, (Dec.) 1938.

[10] Wile, U. J., and Hand, E. A.: Cancer of the Lip, *J.A.M.A.*, 374-382, (Jan. 30) 1937.

[11] Barach, A. L.; Eckman, B. S., and Molomut, N.: Modification of Resistance to Anoxia, with Especial Reference to High Altitude Flying, *Am. J. M. Sc.* **202**:336, 1941.

[12] Sievers, R. F.; Edwards, T. I.; Murray, A. Z., and Schrenk: Effects of Exposure to Known Concentrations to Carbon Monoxide, *J.A.M.A.*, 585-588, (Feb. 21) 1942.

[13] Wright, Wade: Arsenic Poisoning, 542-543; Carbon Monoxide Poisoning, 537-539, Cecil's Textbook of Medicine, 4th Ed., W. B. Saunders, 1939.

cent more than civilians.[5] Bahr[14] believes that the excessive abnormal habit of smoking cigarettes is evidence of a psychotic condition. War tension evidently precipitates or aggravates this latent mental state.

Cigarette smoke is a variable complex of chemicals, some producing local irritant effects, others showing marked systemic actions. The chief systemic poisons are nicotine, carbon monoxide, and arsenic. The principal local irritants are acrolein, formaldehyde, and formic acid. The tars and resins are carcinogenic. Lip and tongue temperature may reach 112 to 140 degrees F. if three-fourths of a cigarette is smoked.[5, 3]

DEFINITION

Tobacco intoxication occurs from the use of or contact with tobacco or its smoke. Certain constant systemic and local toxic effects result, and these effects may be acute or chronic in nature. Addiction comes with prolonged use.

ACUTE INTOXICATION

The acute form is seen in juvenile and tyro tobacco users, as well as all persons engaged in excessive use, or persons subjected to heavy exposures of smoke. Accidental eating of tobacco by children and the capricious ingestion by insane persons have resulted in death. Two cigarettes would be a fatal dose (2 grams), and death is due to nicotine poisoning.[2]

Symptoms of acute intoxication are local and systemic. Local irritants produce an acute conjunctivitis with lacrimation and a burning sensation of the eyes. Nasal and pharyngeal redness and dryness or congestion with occasional rhinorrhea occur. Mentholated smokes may create a puckering sensation of the nose. Paresthesias of the mouth, pharynx and stomach are seen in moderate chewing. The swallowing of small quantities of tobacco has a laxative effect, and large quantities induce purging.[15]

Acute systemic effects vary in degree and affect every cell in the body, as a result of combined carbon monoxide and nicotine poisoning. In slight poisoning the mental and nervous system is affected in such a manner as to result in an overall lowering of efficiency of about 10 per cent.[15, 16] Losses in mental accuracy, rote-learning capacity, imagery and association occur. There is an increase in the speed of continuous mental addition. Certain inhibitions are removed by increasing spinal reflexes.[5] Moderate poisoning heightens these effects, and in addition vertigo, tinnitus, and restlessness occur.[17] Headache, followed by unconsciousness, ensues, and finally clonic convulsions develop with resultant death from spasm of the respiratory muscles.

Early alimentary-tract symptoms are increased salivation, cessation of gastric motility,[18, 16] and increased gastric acidity.[34, 19] Chewing tobacco lessens the power of saliva to hydrolyze glycyltryptophan (peptid splitting).[20] In moderate use there is dyspepsia, anorexia, pyrosis and cardialgia, nausea, epigastric heaviness, and hiccough.[21, 16] As the limits of tolerance are reached vomiting and diarrhea or constipation occur.[18, 15] In fatal doses tetanic contraction of the whole intestine results with obliteration of the lumen.[17] Direct liver damage occurs.[16]

The respiratory system shows no alteration in rate of respiration if intake is slight.[22] Alveolar carbon dioxide tension drops from 55 to 48 per cent for about one-half hour.[23] The bronchioles constrict with moderate intake and dilate with heavy consumption.[16] Moderate intake tends to increase the respiratory rate, with some shallowness and deficiency in expiratory effort.[17] Mild dyspnea may occur with blood carbon monoxide saturations above 10 per cent.[13] Large exposures result in deeper respiratory efforts, continuing at the same rate and then gradually slowing until death.

Cardiovascular responses to tobacco are rapid and marked. Inhalation of one cigarette has caused the heart to beat thirteen to twenty-three times more per minute, has resulted in blood pressure elevations of systolic 10 to 39.7 mm. of mercury and diastolic of 7 to 28.1 mm.,[24, 25, 23] and in marked constriction of arterioles (demonstrable in the retinal vessels) which lasts one-half to one hour.[21] Early symptoms of tobacco intoxication are palpitation, arrhythmias and tachycardia.[24] Disorderly action heart (DAH), "Soldiers Heart," or neurocirculatory asthenia may be brought on by smoking a few cigarettes.[5, 42] Heavier doses evoke precordial pain and even anginal attacks in some cases,[26, 42] probably caused by the excess

[14] Bahr, M., Superintendent Central State Hospital, Indianapolis, Indiana: Personal Communication.

[15] Pack, F. J.: Tobacco and Human Efficiency, *Deseret News*, Salt Lake City, Utah, 1918.

[16] Schrumpf-Pierron, P.: Tobacco and Physical Efficiency, Paul B. Hoeber, Inc., N. Y., 1927.

[17] Cushny, A. R.: Textbook of Pharmacology and Therapeutics, 10th Ed., Lea & Febiger, pp. 335-345, 1934.

[18] Schnedorf, J. G., and Ivy, A. C.: The Effect of Tobacco Smoke on the Alimentary Tract, *J.A.M.A.* **112**:898-903, (March 11) 1939.

[19] Rosenblum, H.: Cigarette Smoking, Its Effect on the Volume and Acidity of Gastric Juice with Particular Ref. to Duodenal Ulcer, *Cal. & West. Med.* **49**:191-194.

[20] Smithies, F.: The Glycyltryptophan Splitting Agent in Human Saliva, *Arch. Int. Med.* **10**:521-533, (Dec.) 1912.

[21] Cusick, P. L., and Herrell, W. E.: Retinal Arteriolar Changes as Part of an Induced General Vaso-spastic Reaction, *Arch. of Ophth.* **21**:111-17, (Jan.) 1939.

[22] Theis, F. V., and Freland, M. R.: Smoking and Thrombo-angiitis-obliterans, *Annals of Surg.* **113**:411-423, (March) 1941.

[23] Main, R. J.: Acute Effects of Smoking on Respiration and Circulation, *Proc. Soc. Exp. Bio. and Med.*, 495-500, (Nov.) 1941.

[24] Graybiel, A.; Starr, R. S., and White, P. D.: *Am. Heart J.* **15**:89-99, (Jan.) 1938.

[25] Herrell, W. E., and Cusick, P. L.: The Effect of the Inhalation of Tobacco Smoke on the Vascular System, With Ref. to Changes in Blood Pressure, *Med. Clin. of N. Am.* **23**:1033-1040, (July) 1939.

[26] French, H.: Index of Differential Diagnosis, 5th Ed., Wm. Wood and Co., 1936.

cardiac work as a result of the tachycardia and hypertension.[24] Syncope and dilatation of the ventricles with small high tension pulse follows, then bradycardia with heart block before death. Electrocardiographic changes[24, 9] produced by one-fourth to one cigarette show flattening and inversion of the T wave for one-half hour. In some cases there is an increase in the height of the P wave and minor QRS complex changes. A rise in blood sugar comes with each tobacco use.[9, 2] Oxygen saturation of venous blood may rise 11 to 22 per cent more than normal. Arterial blood shows a reduced oxygen saturation of as much as 5.15 per cent after the use of only four cigarettes.[22] This reduction in arterial oxygen saturation can be explained at least in part by a commensurate increase in the carbon monoxide content of the blood. Hemoglobin has an affinity for carbon monoxide about two to three hundred times greater than for oxygen.[13] Smoking twenty cigarettes in seven hours gave a carbon monoxide blood saturation of 5-10 per cent[11] and five puffs a minute for an hour would produce 22 per cent saturation.[9] The fact that venous oxygen saturation approaches arterial concentrations would indicate a marked reduction in oxygen use by the body.

In the genito-urinary system we first see a mild diuresis[17, 15] from the hypertension. Later, bladder spasm results in frequency. Nicotinuria results in a very few minutes after the use of tobacco, and nicotine may be demonstrated in the urine three to four days after the last intake.[8] Stern speaks of a "tobacco glycosuria," and a levulosuria has been reported with heavy exposure to tobacco.[16] Uterine contractions occur with tobacco use, and miscarriages have resulted from excessive contact.[15, 16] I have observed pernicious vomiting of pregnancy in heavy smokers. Fetal heart rate is affected by maternal smoking, and .03 mgm. of nicotine per liter of mother's milk was found in a fifteen-a-day cigarette smoker.[27, 2] Such babes would have this dose augmented by breathing room smoke.

Skin and somatic effects are produced with each successive tobacco use. Pallor occurs and skin temperature drops as much as 2.8 in the toes to 3.9 degrees C. in the fingers.[42, 25, 23] Sudation occurs with heavier use and nicotine appears in the sweat.[17] Four cases of angioneurotic edema[27] involving the lips, eyelids, and other parts have been reported from the use of tobacco. General muscular efficiency is lowered, with a slowing of movement and diminution of the power of contraction[15, 16] in slight to moderate tobacco use. Heavy and fatal doses first bring on incoordination, then twitching and clonic convulsions, with death.

Diagnosis of acute intoxication rests principally upon the establishment of tobacco use, which fact may be demonstrated by the finding of partially used tobacco units or a tobacco container, the odor of tobacco about the patient, and the presence of nicotinemia or nicotinuria. Tobacco angina differs from true angina pectoris in that it is less severe and is more common in women than men, and usually occurs in the young. Attacks last from one to two hours, come on at night, and are worse after retiring.[42, 26] Diagnostic care must be exercised, for tobacco use may precipitate true angina.

Treatment of acute tobacco poisoning consists primarily of prevention of further tobacco contact. When tobacco has been eaten, give tannic acid or strong tea solutions at once, followed by emetics and the stomach tube. Gastrotomy would seem to be indicated if the stomach cannot be emptied by these means. Strychnine is indicated in such cases and may be given in 1/30 grain doses every hour for four doses, hypodermatically. Oxygen administration with some form of artificial respiration may be needed, for often the heart continues to beat for some time after respiratory paralysis occurs.[17] Iodomethylate of tetramethylene tetramine injections effectively antagonize many of the actions of nicotine experimentally, and Sollmann[2] believes this drug deserves a clinical trial. He also favors charcoal or permanganate orally and caffeine hypodermatically.

Before considering chronic intoxication it will be interesting to enumerate the various reasons given for repeated use and addiction. Most beginners adopt the habit as an imitation of some admired acquaintance or because they consider it a necessary social prerequisite, a gaining of manhood, if you please. The story of Dr. Will Mayo will illustrate this.[28]

When Will came home sick after his first attempt at smoking, Doctor Mayo's only question was, "Why did you do it, Will?"

"The other boys were so I did, too."

"Listen, Will," said his father, "don't ever do things because other people do. Do them because they are right."

Some continue tobacco use because they enjoy the odor or flavor, others because of the warmth or sight of the smoke. The blind seldom smoke, and many do not enjoy smoking in the dark.[17] A great number like the "lift" which is probably due to the elevated blood pressure, pulse rate and blood sugar. A directly opposite reason given by a goodly number is that they smoke for relaxation, and this is true, for the narcotizing effect of nicotine lowers the activity of the forebrain, removing inhibitions and resulting in relaxation. A peculiar reason given by some for continuing to smoke is that when abstinence is attempted and they are around others who smoke an acute nausea develops. True addiction with withdrawal symptoms is seen.[17] Pipe-smoking is said to satisfy the primitive sucking reflex which has not been entirely lost with adolescence. Smoking is for some a camouflage for loafing and an escape from ennui, for the act furnishes a rhythmical activity at a minimum of

[27] Adair, Textbook of Obstetrics and Gynecology, Volume I, Lea and Febiger, 169, 1940.

[28] Clapesattle, Helen: The Doctors Mayo, p. 166, University of Minnesota, 1942.

energy expenditure. Bahr[14] believes that the excessive abnormal habit of smoking cigarettes is evidence of an already psychotic condition.

CHRONIC TOBACCO INTOXICATION

Long-continued use of tobacco produces widespread lesions in man, many of which are fatal to parts or even the whole organism. Mild but persistent anoxia from vasospasm and carbon monoxide poisoning is probably the chief cause of these lesions, although chronic arsenic poisoning may play a part. The average life span of chronic indulgers is shortened several years by the innocent pastime, in proportion to the amount used.[29, 30]

The mental and nervous system may repeatedly show all the symptoms of acute intoxication, although some tolerance is developed.[17, 2] Bahr[14] contends that the use of strong Havana cigars produces neurasthenia with fatigue exhaustion, insomnia, and tremor. Others confirm this belief.[26, 16, 2] Amblyopia directly attributable to chronic retinal arteriolar spasm, which readily can be seen, represents one of the indisputable toxic effects of tobacco. Foggy vision, central scotoma for red and green, fixed black specks before the eyes, and hemeralopia are the resulting symptoms of the amblyopia.[31, 17, 21, 32, 26] Complete optic atrophy blindness may occur. Nerve-type deafness and tinnitus aurium are described.[26, 3] True tobacco psychoses are reported as well as epileptiform states.[16] Outstanding impairments are loss of memory, dullness of perception, slowing of cerebration, and delay in instantaneous association. In this era of Blitzkreig even Churchill-like persons cannot afford to risk a self-inflicted, lowered mental efficiency.

Alimentary tract lesions from chronic use are numerous. The lips and buccal cavity being subjected to prolonged direct contact with tobacco and heat of its combustion often are the site of cancer. This is especially true at the points at which the quid, pipe stem, or betel chew is carried.[33, 3, 10] Such carcinomatous lesions are often preceded by "smokers patches" or leukoplakia. Marked tooth abrasion occurs in chronic chewers. Pharyngitis, first granular then atrophic, occurs.[16] The stomach suffers a chronic inflammatory process and acid dyspepsia or hyperaciditas nicotinica of Kaufmann is very common in smokers,[17, 34, 26, 19] while an hypo-acidity is frequent in chewers.[16] Acid increase is greater in chronic smokers than in non-smokers. In chronic users free hydrochloric acid rose 18.9 to 30.5 degrees in twenty minutes, and total acid 30.1 to 40.8 after smoking a cigarette. The corresponding figures for non-smokers were 13.8 to 22.7 free hydrochloric and 25.5 to 34.7 total acid.[19] Colonic hyperirritability, which is demonstrable by x-ray, may result in either constipation or diarrhea.[3, 18]

The respiratory system is obviously subjected to heavy punishment in chronic inhalers, and the result is a protracted inflammatory process from the nose and throat to the alveoli. Chronic rhinitis, laryngitis, and bronchitis are commonest.[3, 9] Pachydermia laryngis may account for many cases of tobacco hoarseness. Morning cough is perhaps the most familiar symptom of chronic smokers.[26, 9] It is a well-known fact that cancer of the larynx, pharynx, and lower respiratory tract are more common in smokers than in non-users. Cancer of the lung is rapidly becoming the second, if not first, most common malignant neoplasm in the male.[35] Bronchiole ciliary action is inhibited in heavy users, especially with mentholated brands.[2] "Smokers asthma" is a sighing form of dyspnea due to paralysis of the respiratory center in chronic heavy smokers.[16] "Tobacco asthma" of Guy and Pick is a form of shallow nocturnal dyspnea adopted to ease a sharp precordial pain.[36] Alveolar carbon dioxide tension drops more (55-48 per cent) in a regular user than in a non-smoker.[23] Inhaled tobacco dust causes serious commercial poisoning.[2]

The cardiovascular system is not fortified against tobacco by chronic use, but is gradually and persistently damaged. Generalized anoxia resulting from maintained vasoconstriction, carbon monoxide poisoning, and the peculiar fact of diminished oxygen use is only partially compensated for by hypertension, tachycardia and polycythemia.[22] I have noted finger-clubbing in a chronic heavy smoker without history or signs of organic cardiovascular or pulmonary disease. Amblyopia has been discussed above. It is a hideous fact that tobacco coronary heart disease is taking an ever-increasing toll of our younger men.[16] The incidence of coronary heart disease as well as its severity is in proportion to tobacco use.[36, 37] The reason for this is obvious. A needless tachycardia and hypertension is produced, greatly overworking the heart, and at the same time the oxygen supply is reduced, thus intensifying the cardiac insult. Is it any wonder that the heart cries out with angina? Tice records four cases of angina pectoris who ceased smoking and were relieved, then upon resumption of tobacco died within the hour. Experimental evi-

[29] Hadley, H. G.: Effect of Tobacco on Longevity, *J. Med.* **22**: March, 1941.

[30] Pearl, R.: Tobacco Smoking and Longevity, *Science* **87**:216-217 (March 4) 1938.

[31] Carroll, F. D.: Importance of Diet in Etiology and Treatment of Tobacco-Alcohol Amblyopia, *Arch. Ophth.* **18**:948-962, (Dec.) 1937.

[32] Duggan, W. F.: Treatment of Tobacco Amblyopia with Vasodilators, *J.A.M.A.* **109**:1354-58, (Oct. 23) 1937.

[33] Friedell, H. L., and Rosenthal, L. M.: The Etiologic Role of Chewing Tobacco in Cancer of the Mouth, *J.A.M.A.*, 2130-2135, (May 10) 1941.

[34] Ehrenfeld, I., and Sturtevant, M.: The Effect of Smoking Tobacco on Gastric Acidity, *Am. J. M. Sci.* **201**:81-86, (Jan.) 1941.

[35] Halpert, B.: Incidence of Carcinoma of the Lung, *Cancer Research* **1**:900, (Nov.) 1941.

[36] English, J. P.; Wilius, F. A., and Berkeson, J.: Tobacco and Coronary Disease, *J.A.M.A.* **115**:1327-28, (Oct. 19) 1940.

[37] Master, A. M.; Dack, S., and Jaffe, H. L.: Factors and Events Associated with Onset of Coronary Artery Thrombosis, *J.A.M.A.* **109**:546-549, 1937.

dence shows a ready production of changes in the aorta of animals inhaling tobacco fumes over a considerable time.[38] Evidence is overwhelmingly in favor of tobacco as the prime etiological agent in thrombo-angiitis-obliterans. In fact, Buerger's disease represents only one phase in a generalized tobacco vascular disease.[8, 22, 39] Bernheim[40] says that the only thing of possible causal nature that patients suffering from peripheral vascular disease have in common is tobacco. Of one thousand consecutive cases of thrombo-angiitis-obliterans Silbert[41] found none who did not smoke. Schlesinger[42] found that 90 per cent were smokers in a series of one hundred cases of obliterative endarteritis with intermittent claudication. Wright[39] found only three major amputations necessary in one hundred consecutive cases of thrombo-angiitis-obilterans—all in persons who would not stop smoking.

The genito-urinary system must suffer as all other tissues in the body. The urine of chronic smokers contains 1.4 to 9.8 mgm. of nicotine in a twenty-four-hour specimen.[2] It is said that habitual use of tobacco causes impotence in the male.[16] Bastedo[43] questions this. The relationship of tobacco use to arteriolar nephrosclerosis is deserving of more careful study, for it is conceivable that the mechanism may be the same here as in amblyopia, thrombo-angiitis-obliterans, and coronary disease.

The skin and somatic system suffer considerably with chronic use. Barksdale[4] reported eight cases of arsenical dermatitis from cigarettes, all of whom recovered with abstinence. Recurrences took place every time commercial tobacco was used. Arsenic-free tobacco would not cause the typical pruritus with red scaly skin. Blood arsenic readings were .002 to .240 mgm. per 100 cc. of blood. Such cases are more apt to occur in persons receiving arsenic simultaneously from some other source, resulting in a summation effect. In attempting to desensitize patients allergic to tobacco, generalized eczema of hands and face and delayed eczematoid reactions have occurred.[44] Somatic symptoms of acute intoxication persist with chronic use, and a very prevalent and important state of chronic fatigue develops.[9] Depletion of stored muscle glycogen and prolonged anoxia are probably responsible for this. A slight spurt in the metabolic rate of 5 to 15 per cent is noted after each tobacco use.[2] Obviously this is not a basal reading.

DIAGNOSIS

A careful history usually establishes the diagnosis. Certain stigmata, such as stained fingers, mustaches and teeth, present in one showing the characteristic clinical findings, offer further aid. Therapeutic withdrawal is usually followed, after about three days, by rapid amelioration of the symptoms. Many so-called "vitamin deficiency states" are at least in part due to chronic tobacco intoxication. The significance of this statement can be appreciated more readily by comparing the symptoms enumerated above to any vitamin chart which considers symptomatology.

TREATMENT

Success will not be achieved until total abstinence is maintained. In many cases improvement will be immediate and remarkable, although it is very essential to treat the more serious phases of the disease. General symptomatic measures should be used. Light wines and beer relieve many of the annoying symptoms, and many smokers empirically resort to this antidote.[15, 16] Improvement in eighty-one of eighty-eight eyes was noted when acetylcholine chloride and sodium nitrite were used in amblyopia.[32] High vitamin, well-balanced diets seemed to hasten eye recoveries.[31] The accepted special measures useful in treating disease of the coronary and peripheral vessels, such as rest, vasodilatation, and careful attention to diet are needed.

LEGAL ASPECT

One wonders why tobacco products are not subject to control by the pure food and drug laws. In the Indiana Food, Drug and Cosmetic Act,[45] Section 3, Paragraph G, a drug is defined as any "article (other than food) intended to affect the structure or any function of the body of man or animals." Obviously tobacco fulfills this definition even to the intention, for advertisements speak of the chief "physiological component" of cigarette smoke, and one mentholated brand even claims a "cooler mouth" and "clearer throat." Who can dispute that these are therapeutic claims or that there is at least an intended effect upon some "function of the body of man." Our eminent pharmacologists would not include tobacco in their textbooks if it were not considered to be a drug. Just under what kind of a pretext does tobacco escape from the application of this law? Considering that tobacco is a drug, then we apply Paragraph E of Section 18 and find that the amount of arsenic present must be given on the package, and Paragraph F requires that there be adequate directions for use and adequate warning against use in children and in patho-

[38] Lee, W. E.: Action of Tobacco Smoke with Special Reference to Arterial Pressure and Degeneration, *Quart. J. Exp. Phys.*, London, 1908.

[39] Wright, Irving: Conservative Treatment of Occlusive Arterial Disease, *Arch. Surg.* **40**:163-189, (Feb.) 1940.

[40] Bernheim, B. M.: Diseases of the Peripheral Arteries and Their Relation to Trauma, *Am. J. of Surg.*, 731-734, (Dec.) 1938.

[41] Silbert, S.: Angioneurotic Edema Due to Tobacco Sensitivity, and Thrombo-angiitis-obliterans in Same Patient, *J.A.M.A.* **114**:1442-43, (April 13) 1940.

[42] Golston, H.: The Tobacco Heart, *Virg. Med. Monthly* **64**:319-325.

[43] Bastedo, W. A.: Mat. Med., Pharmac., Therapeutics and Prescription Writing, 4th Ed., pp. 536-548, W. B. Saunders Co., 1938.

[44] Harkavy, J.: Hypersensitiviness to Tobacco and Biopsy Studies of Skin Reactions in Vascular Diseases, *J. Allergy* **9**:475-488, (July) 1938.

[45] Indiana Food, Drug and Cosmetic Act: Enacted March 6, 1939; Chap. 38, Acts, 1939.

logical conditions wherein it may be dangerous to health. I wonder how long it will be before someone is bold enough to tackle the application of this law to tobacco in our state?

Opposition to tobacco was very strong in Europe when it was first introduced, but Richelieu of France and Charles I of England soon squelched this opposition when they discovered its value as a source of taxation.[2] This is probably the chief reason why we now tolerate the "pampered" poison, for tobacco is exceeded only by the income tax and profits tax as a source of revenue in the United States.[1]

SUMMARY AND CONCLUSIONS

1. Tobacco is a dangerous drug.
2. The prime toxic effects are due to nicotinism, carbon monoxide poisoning, arsenic poisoning, and certain local irritants.
3. A distinct and fairly constant clinical syndrome results from tobacco use.
4. The chronic effects of tobacco poisoning, although slow, are none the less fatal.
5. Indiscriminate and excessive tobacco use constitutes an enormous public health problem.
6. The Pure Food and Drug Law should be applied for the control of tobacco products.

ABSTRACT

ARMY STARTS SPECIAL SERVICE FOR FACE AND JAW CASUALTIES

A special program for the care of face and jaw casualties has been inaugurated by the Army Medical Department, Leigh C. Fairbank, D.D.S., Sc.D., Brigadier General and Assistant to the Surgeon General, United States Army, Washington, D. C., reports in the current issue of *War Medicine*, published bimonthly by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council.

It no longer will be necessary for such casualties to be transported to large hospitals far to the rear of the front line before receiving any of the special care such types of wounds require. All medical personnel, from that of the battalion aid station to the general hospitals far to the rear of the combat zone, are being given special training in the care of such wounds.

As General Fairbank points out, "New developments in restorative aspects of surgical prosthesis and dental repair afford possibilities today which far surpass the facilities available in past years." The program described by him is aimed at assuring the availability of these facilities.

The General says that "The American soldier has a right to expect adequate protection against disease, through treatment when sick and skillful surgical care if wounded in battle. He anticipates either a return to duty or restoration to a place of independence in his community and social circle. War leaves its mark on every nation involved. The medical service is the one great and shining hope for the soldier as troops engage the ruthless enemy in battle. . . . American medicine must fulfill its obligation to the American soldier.

"This becomes a particularly exacting problem when associated with the care of face and jaw casualties. Surgical reconstruction, cosmetic repair and restoration of function are all vital to its solution. The breadth of training and the depth of distribution of trained medical personnel are problems which have engaged the thoughtful consideration of the Army medical service and the distinguished leaders of the medical and the dental professions. The desire to meet the needs in the various situations and conditions of war is found in the plans for the maxillofacial service in the Medical Department of the Army. . . .

"The facilities for the care of face and jaw casualties are limited in the foremost medical installations but increase as the patients move rearward to medical units which are larger and more completely serviced. The personnel, however, in each battalion aid station and every other type of medical installation in the division receive thorough training in first aid treatment for maxillofacial wounds. Such treatment provides for the arrest of hemorrhage, removal of foreign bodies from the mouth and throat, establishment of an adequate respiratory airway, application of dressings and bandages for the approximation and control of displaced soft tissues and bone fragments and, finally, for the safe transportation of the patient by litter and/or ambulance to the rear. . . ."

General Fairbank points out that the distribution of medical units in the Army has been so arranged that at least one medical officer and one dental officer with special training for the care of face and jaw casualties are available in each surgical and evacuation hospital located in the combat zone.

Inasmuch as reconstructive surgical procedures are not attempted in the combat zone, larger emphasis on the training of personnel operating in this area is on the early treatment of face and jaw casualties.

He points out that for several months equal numbers of medical and dental officers have been pursuing a thirty-day course in maxillofacial surgery at the Army Medical Center, Washington, D. C., under a program of instruction prepared by the Subcommittee on Plastic and Maxillofacial Surgery of the Division of Medical Sciences of the National Research Council. The subcommittee has recommended a ninety-day training course for the medical and dental personnel to be assigned to general hospitals for the surgical reconstruction and dental restoration of patients with face and jaw injuries.

Under the general program for the development of maxillofacial teams and the training of select medical and dental personnel, the Army dental officer no longer is solely concerned with those duties generally ascribed to a dentist in civilian life. The dental officer is an integral part of each medical unit and must complete the training routine, covering the early care of all types of gunshot wounds, all kinds of gas intoxication and other battle emergencies. As General Fairbank describes it, "This training makes him a valuable assistant to the medical officer in every aid station, clearing station and hospital. In bone surgery and plastic repair of face and jaw casualties, the dental surgeon participates as an assistant to the oral and plastic surgeon. . . . Superior results are assured through the cooperative efforts of the medical and dental specialists.

"The training of dental personnel in the various phases of oral and plastic surgery is not based on the intention of utilizing them as plastic surgeons or giving them the status of surgeons in the reconstruction of the face and jaws. This training is solely to provide more thoroughly a broad understanding of the problems in this field and to assure the full employment of the many aids which the dental surgeon and the supportive dental agencies can provide in each phase of the maxillofacial service."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association
Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis....Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend....Dec. 31, 1944

JUNE, 1942

Editorials

ENLIST OR BE DRAFTED?

The special meeting of the council held on May seventeenth might well have been headed, "The War Came to Medical Indiana." Every member of the council was present, together with numerous association officials, military officers and other invited guests.

It was not a large meeting, as numbers go, but it was a War Meeting; not since "Pearl Harbor" have we seen such a determined spirit in a group of Hoosier physicians. Early in the session it was made clear that *the Army needs medical officers*, lots of them, and the various speakers, from the Fifth Corps Area Chief on down, outlined the various means whereby these medical officers will be procured. As Dr. Henderson, Fifth Corps Area Chief, pointed out, the medical profession has been afforded this opportunity of providing the needed medical personnel; if we fail to do so, the task will be taken over by the Army; and if this should happen (*and it will not*), socialized medicine will have made its greatest advance in all medical history.

Let's face the facts: it now is made *definitely* clear that the Army needs several thousand medical officers right now—*and plans to get them!* It has been decided that they first want the younger men, those under forty-five years of age, and that the thirty-six-year-old group will have the first call.

Now that this has been determined, each physician of the above age-groups should seriously consider immediate enlistment. If you are physically fit, it is most certain that you will be in the Army, in one capacity or another. Dependency is "out," since your pay check will cover that item. Your present 3-A classification is no longer a draft barrier, since your classification can be changed to 1-A almost over night. No man is regarded as wholly indispensable—someone can be found to take his place.

If you have not yet responded, we urge you to do so; an enlistment in the Medical Corps will save many embarrassing days in the months to come—days you may be spending as a draftee in the regular Army!

GENERAL HOSPITAL NO. 32

Over the years we have witnessed numerous pageants in connection with both civil and war activities, but on Wednesday afternoon, May 13, 1942, we were privileged to take part in one of the most impressive ceremonies in our memory — that of the induction of the General Hospital No. 32 as a part of the armed forces of the United States of America.

The setting for this epochal event had its origin many years ago, back in the days of World War I when the Lilly Base Hospital No. 32 was formally presented to the armed forces of that period, so it was eminently fitting that the present unit should be assigned the same number.

The unit was organized by the Medical Department of Indiana University and presented to the Government in the name of that time-honored institution, following appropriate ceremonies held in the quadrangle at the Medical Center. Several thousand folk had gathered prior to the entrance of the formal procession, headed by local, state and federal dignitaries escorting the medical officers and second lieutenant nursing group, and flanked on every side by numerous Medical Corps men already in the Service, while from every available window of the Riley Hospital the little patients watched the ceremonies with absorbing interest, many of the little tikes no doubt wondering what it was all about.

To the stirring strains of martial music by the R.O.T.C. Band of Indiana University, the unit group, with firm, measured step, passed along the aisle leading to the platform from which the ceremonies were carried out, to the applause of the thousands gathered for the occasion.

The invocation was given by Rev. W. A. Shullenberger, and Dean Gatch presided during the ceremony, presenting President Wells of Indiana University; Mayor Sullivan; Governor Schricker; Dr. Carleton B. McCulloch, oldest surviving member of the official staff of the first Base Hospital No. 32; Doctor Bryan, President-Emeritus of the University; and Colonel Shoemaker, head of the R.O.T.C. group at the University.

President Wells read a telegram he had received from Indiana's two senators.

Lieutenant-Colonel Peak was asked to give the oath of allegiance to the unit, which event proved

the crowning glory of the ceremony. As he stepped to the front to administer the oath, Colonel Peak said in a firm, commanding voice, "Americans, stand up!" With these words a thrill went over the vast assemblage; instead of the customary "will the audience please rise," came the order, "Americans, stand up!" With that setting the finalé of the induction ceremonies became the most outstanding feature of the occasion. No one in that vast audience but could feel the tremor and thrill of the momentousness of the occasion, yet, withal, the very seriousness of it all, for this unit expects Service; they anticipate that that Service will be away from the shores of the Mother Country, but come what may, there is every assurance that General Hospital No. 32 will carry out the hopes of all who were present at these impressive ceremonies, the hopes of the state, and the hopes of the nation.

The unit was presented with a complete stand of Colors, the ceremony incident to this event being a most beautiful one, and as Lieutenant-Colonel Clark was called to the platform, there to receive the insignia for all officers of the unit, the program came to a close. Bishop Joseph Ritter pronounced the benediction. The national anthem was played and everyone, with bowed head, uttered a silent prayer of thanks for such a valiant company, and prayed for their safe return to Indiana.

VENEREAL DISEASES AND THE ARMY

During World War I one of the numerous health problems had to do with the venereal diseases. As a result of a comprehensive study of this problem, a rather definite plan of control was worked out for possible future use. It now seems that these plans are to be used, in fact they already are in operation.

History records that in all wars the problem of prostitution has been a foremost one; "women of easy virtue" have flocked about the encampments, and the spread of venereal disease has thereby been accelerated. During the later months of World War I the United States Public Health Service, together with attachés from the Office of the Surgeon General of the Army, made great strides in the control of these diseases.

So it is that with the coming of the present war these agencies are better prepared, better equipped, and are ready with well-prepared plans to minimize this great evil. It is to be remembered that the Army — and by the use of that term we include all the armed forces of the nation — is all-powerful. The Army can — and often does — over-ride cities and states in the matter of orders.

Quite some time ago Army officials advised certain communities located near encampments that venereal disease control within those communities was a prime necessity. Many such communities at once set out to "clean up"; but too many failed to heed the call, so the Army proceeded to take over.

One such situation arose within our own state; with Fort Benjamin Harrison located quite near our capital city and with Camp Atterbury in process of construction, not too far from the Indianapolis city limits, an Army survey was made of the more or less open prostitution in that city. These findings were carefully considered and the proper health officials contacted. It seems that the co-operation desired on the part of the Army was slow in coming, hence the Army promptly took a most drastic step; it announced that if a "clean up" was not made immediately Indianapolis would be declared "out of bounds" for all service men— meaning, of course, that no such men would be allowed to visit that city.

This is by no means an isolated case. Numerous other Army posts throughout the country have found it necessary to take such drastic steps; they mean to make these camps safe for the young men of the nation, and in that intent they merit the support of the entire profession of medicine, as well as that of the lay public.

While prostitution is probably the oldest profession in the world and for ages has been one of our problems, there is no occasion for permitting it to "run riot," just because we are immobilizing the greatest army in the history of the nation. The Indiana State Board of Health has entered into this campaign with a vigor that is astounding; Secretary Ferree has announced his program, which concords with that of the Army in every particular.

Indiana is becoming thoroughly dotted with war plants of all kinds; few states have more plants whose entire output is war materiel. The employe list runs into the hundreds of thousands, with thousands more to be thus employed later on. We have — and will have more — thousands of young Army men within our borders, in the camps and on guard at the munition plants. We safeguard their water supply; we see to it that they have good, wholesome food; we take full care that they may have comfortable, sanitary living quarters; they thus have been accorded the right to expect such treatment. Are they not, then, entitled to venereal disease protection? We are in no sense theorists; we do not anticipate nor do we expect the impossible; we do not believe that the venereal disease problem is that easy of solution, but we do believe that it can be *controlled* if the city, county and state health officials will co-operate with the Army.

And, we thoroughly believe that co-operation will be forthcoming — it already is here! True it is that in certain localities the mailed fist may have to be used, but in the end we will find Indiana Medicine and the great majority of Hoosier folk willing to "play ball."

SAVE BY ENLISTING YOUR DOLLARS!

The actuality of war has long since been brought home to us—Pearl Harbor, Bataan, Corregidor, the loss of war and merchant ships . . . . American soldiers of land, sea and air are now fighting on every continent—they march forward on distant battle fronts carrying the flag of freedom. At home, workers on the production lines are speeding the output of war materiel. To maintain our troops abroad, train new recruits, and pay for the tools of war, the nation needs dollars and more dollars.

Americans do not question the necessity of paying for our fight for victory. But to pay in the best way possible is the objective. A large part of the total bill must be paid from our current national income through taxes and loans to the Government.

Due to the step-up in production to meet the demands of total war, our monthly income of today exceeds that of a year ago by approximately two billion dollars, that of two years ago by three billions! While our purchasing power increases, fewer and fewer goods are being manufactured for our everyday use. Competition in buying on the consumer market will skyrocket prices for all goods—those which we must have as well as those we can do without. Inflated prices not only increase the cost of living, but they increase the cost of the war effort and cut down the value of our savings and incomes. Hence, dollars from our current incomes must be taken out of general circulation and channeled into the war effort.

The heavy taxes of today and the heavier ones to come siphon off a portion of the increased national income. Tax revenues, however, will not meet the costs of war and they do not represent a sufficient portion of the total income to curb the upswing in prices. So it is that the Government seeks to limit credit loans which tend to speed inflation, and to borrow directly from families and individuals, to borrow dollars from salaries, wages and other incomes. This is one of the President's seven points in the all-out attack against the upward spiral of the cost of living.

The nation needs a billion dollars a month from individual loans through the purchase of War Savings Bonds, and the nation has a right to expect the voluntary enlistment of these dollars. To meet this quota, means that ten per cent of every individual's income must be invested in bonds EVERY MONTH. The success of the War Savings Program depends upon individual Americans—our willingness to accept our obligations on the home front. If we fall short, voluntary cooperation must give way to forced enlistment whereby dollars from current incomes will be set aside at their source for the purchase of bonds.

We as a people must meet the needs of America today on *every* battlefront. And for this we must FIGHT, WORK and SAVE.

THE ENROLLMENT

Figures have not at this date been released as to the number of physicians, dentists and veterinarians responding to the call for universal enrollment; however, each of these professions has ever been found ready for any call, hence it may be presumed that the vast majority have indicated their desire to be of service "for the duration." There are, of course, a few who did not send in the forms, for one reason or another; a few such instances have come to our attention. We also are advised that some were a bit evasive in their answers; that is, they did not come out with a frank declaration that they were willing to enlist.

In a short time every State Association will have definite information as to the number of their members who have signified their intention to do whatever may be asked of them, since the first page of the enrollment form is to be sent to State Association M-Day chairmen. As was stated in THE JOURNAL for May, the button idea has been abandoned and other means will be used to inform the general public as to what members of the profession have signed up.

It is commonly known that the Army — and by that term we include all the armed forces of the nation — needs several thousand additional medical officers before July first, and that before December first this requirement will be increased probably four-fold. Our State M-Day Committee has officially been advised that Indiana will be expected to furnish several hundred medical officers before July first. All this means hyperactivity on the part of the medical profession of our state.

As was announced last month, each state has a two-man team, a representative from both the Surgeon General's and the Adjutant General's office which will "make the rounds", calling on those who have signified their desire to enter some sort of service. This team will not only make the physical examinations, but will determine the rank to be conferred, and is prepared to swear in the officer at once.

It should be patent to all who keep in touch with these developments that official Washington is desirous of "making it easy" for us; that is, they have not adopted drastic measures in procuring the needed medical officers. However, a little "straw in the wind" would seem to indicate that a bit of cracking down may be in the offing.

We are advised that an order has gone out to all local draft boards covering the matter, and it is clearly indicated that a re-classification of 3-A physicians is to be done in the event this group does not show more indication of enlisting in the medical service. This, of course, should not be necessary; the younger group has long since been advised that they are the ones wanted at this time, and now that draft calls are being greatly speeded up it is more than apparent that there is a crying need for additional medical enlistments.

We again appeal to the younger groups to get

going; be ready when the two-man team visits your section of the state; welcome them, and sign up. It is very certain that the great majority of the younger medical men will be in service during the current year, through one means or another; *it will be far better to enlist than to be drafted.*

DOCTORS AND TIRES

Considerable criticism has been directed against members of the medical profession who have enjoyed long winter vacation trips, via automobile, in the southern sections of the country, as well as into Mexico. While it is quite proper that doctors have a preferment in the matter of automobiles and their equipment, it is manifestly unfair that any undue advantage be taken in the matter.

Some physicians who made these trips were rather severely criticised by residents of the southern sections for taking such an advantage. One such physician said he not only had been asked why he was running about the country in his car, but why he was not in the Service, as well.

On several occasions private patients have expressed themselves very clearly. One man, prominent in a local CIO group, bitterly complained that he and his fellow employes were not to be permitted to have new tires, to be used in going to and from employment in the essential industries, but that medical men had no trouble in getting new tires, that they might take prolonged trips.

It is manifestly unfair and should not be. Physicians have no more right to new automobile equipment than any other group of citizens, except when the cars are used for professional purposes. With all the many curtailments now coming from Washington, the medical profession should "play ball" along with the rest of the population.

Use your cars for professional purposes, but limit their use in pleasure jaunts. That reminds us — most doctors take vacations — all doctors should take vacations; but let's do it by train rather than use precious rubber and gas.

Plan to attend the

Annual Convention

of the

Indiana State Medical Association

at

French Lick

September 29, 30 and October 1, 1942

Editorial Notes

Captains C. E. Northrup, from the office of the Surgeon General, and J. H. Miller, from the office of the Adjutant General, U. S. Army, form the two-man team now calling on applicants for commission in the Army Medical Reserve Corps. As has been announced heretofore, these men have authority to make physical examinations of all applicants, determine the commission to be awarded, and to swear them into service.

The Lake County Medical Society has completed an extensive "public relations" canvass, the results of which have brought forth some very interesting data as to what Mr. and Mrs. John Q. Public think of the medical profession. While much of this opinion is rather favorable to the profession, some of those interviewed did not spare in their comments. At a later time THE JOURNAL will carry an analysis of this survey.

The Indiana school bus record continues to excite the admiration of Hoosier folk, the 1941 record equaling that of former years in the matter of safety to the youngsters who profit by this means of school transportation. These vehicles are operated under the immediate direction and supervision of the Indiana State Board of Health; the average cost per pupil is estimated to have been $22.88, which is a most reasonable figure. Millions of miles of pupil-travel without a serious accident speaks extremely well for the present system.

Reports continue to come in regarding the theft of surgical instruments and drugs from the offices of physicians as well as from their cars. The average thief who specializes in this type of theft is, of course, looking for narcotics, but in these days of restricted materials the instrument bag of the doctor becomes a rather valuable property. All cars should be well locked, even though the driver expects to be away for but a short time. Occasionally the rear of the car is broken open, that a spare tire or two may be purloined.

During the recent special session of the Council several of our members remarked to the effect that THE JOURNAL had become a war magazine, these statements in no wise critical—rather did they seem to feel that it should be so. Last January we stated in our report to the Council that THE JOURNAL would henceforth be all out for the war.

We believe that the first duty of all medical magazines these days is to use every effort to further war interests.

The following item was noticed in the *Chicago Sun*; it might indicate that there is honor at least among some thieves:

> Doctors are not having as much trouble as ordinary citizens in purchasing new tires. They need them for their work, and their work is important. So some tire-hungry people have been removing tires from doctors' cars and leaving full payment for them in the front seat with this kind of a note: "You can get more—we can't."

The War Letter, a bulletin issued by the Venereal Disease Health Department of the U. S. Public Health Service, announces that the "pulp magazines" will co-operate with the department in the matter of venereal disease propaganda. Since these magazines have a combined monthly circulation of nearly five million copies this material will have a wide circulation. In the same issue we note a reference to the number of pre-marital blood examinations made in the United States during 1941, the total being 853,220. Of this group 12,954 were positive for syphilis. This might be regarded as the perfect answer to those who have opposed such legislation.

The Federal Office of Defense Health and Welfare Service, following a survey made in South Bend, appears rather concerned as to the foods commonly used by those contacted. The Service had previously determined eight "musts" in the way of essential foods, and but three of these were commonly found in the diets of the South Bend folk. The "musts" were enumerated as milk and milk products, oranges and grapefruit, tomatoes and raw green salad foods, green or leafy vegetable, other vegetables and fruits, whole grain foods or enriched flour foods, meat, poultry, fish, eggs and butter. Meat, vegetables and butter formed the most commonly used foods in this list, and it was determined that the average housewife had a limited knowledge as to the values of other foods.

With all the proposed war measures, we fail to have noted one about dog control. "Dog days" (yep, we believe in such things) soon will be upon us, and the wandering dog population seems ever on the increase. They do not wait for the official "dog days" season to become veritable pests; already two or three neighborhood canines, whose owners apparently do not know that the Indiana law says dogs shall not run loose, have messed up our crocus bed no end. For the past two years we have been unable to buy the little bulbs which come into bloom so early in the year; we have about a hundred and want to preserve them. We like dogs, have two of them, pay taxes on them, but we keep them at home as the law says we shall do. In addition, dog-bites are becoming more and more common, and one of these days we shall have another rabies scare—then the officials will get busy—for a time.

Vigo County is on the front line in combating the enemy with the Immunization Program, 3,018 cases having been vaccinated for smallpox and 2,529 for diphtheria. Five hundred ninety-eight children of pre-school age also have been vaccinated.

Come what may, the average physician of fifty years or more of age will find his professional duties greatly increased from now on until after the end of the war. Not only will he have the work of the younger group who have entered the Service, but there will be the additional duties incident to Civilian Defense. As was the case in World War I, these additional duties will receive the full attention of those remaining at home, even though there will be many instances in which the extra work will prove to be a hardship. We would again recommend that all our local medical societies make definite arrangements for the returned medical officers; without a moment of hesitation their practices should be returned to them.

Toner M. Overley, of the Indianapolis Better Business Bureau, has sent out an elaborate brochure regarding the "Radioclast," an apparatus used extensively by many drugless practitioners. Mr. Overley announces that the data contained therein states his own ideas about the machine, and that he is solely responsible for what is said in the booklet. His opinion is well supported by a group of scientists of national and international reputation, all of whom declare that the contrivance is wholly without merit. Two suits, each for large sums, have been filed against Mr. Overley, who apparently does little worrying about them. He has been instrumental in bringing to bay some of the most notorious quacks about the state, and at present shows no indication of a let-up in his campaign.

We recently were privileged to read a letter from a young Army Medical Corps officer stationed in one of the large military centers of the South. This letter was most interesting, principally because of the fact that although this young man had left his home and family for the Service, he was quite satisfied with his lot. We quote a few sentences from that letter:

"I am happy here; I feel that I am a definite part of this war effort — that I am fitting into the place I was intended for — and now all the unrest, the nervous tension and the unhappy days of worry are gone. I wish that the young doctors who are so desperately fighting conscription could meet the 'men of the Army,' these brilliant, well-trained, eager men, and could experience the satisfaction of being a part of the vast Army effort. It is healthy, and it is a happy feeling to be in uniform at this time!"

This, indeed, is quite in contrast with the few young medical men who go about condemning the present war situation and who, if they had their way about it would have no part in it.

A news dispatch is to the effect that one of our local societies has unanimously voted that the entire membership is ready for any service that may be asked of them by the Procurement and Assignment Service. From an experience in World War I we are of the opinion that these one hundred per cent "enlistments" do not work out and are not considered highly by those in authority. After all, the matter of enlistment is a purely personal one, not a mass thing.

Three months hence Hoosier Medicine will make its headquarters at French Lick, the occasion being the annual convention of the Indiana State Medical Association. Notwithstanding the war times it is anticipated that the attendance will be about that of normal. The program will have a distinct war-time flavor, as might be expected. We are advised that advance registrations have come up to expectations and that there are many advantages in making these early. You not only have a better choice of accommodations, but the hotel management can better prepare for your entertainment. If you have not already done so, mark your desk calendar today; write the hotel folk, telling them that you will be with them for a few days. A bit of time away from your office, plus the relaxation that this will bring, adds to the enjoyment of an unusually good scientific program. Southern Indiana is at its best in the closing days of September; the air seems to have taken on a new freshness, the Cumberland foothills are beginning to bedeck themselves with all the gorgeous color Dame Nature has at her command — so be there.

We are rather concerned about the Civilian Defense program in certain of our communities; it would seem that once the organizations are formed too many of the "higher-ups" are satisfied to sit back in the reflected glory of their appointment as titular heads of the various plans. It is our opinion that the mere creating of an organization for Civilian Defense is but the beginning; there is much to be done and it requires constant application and study to work out a plan of defense that "works." And, even after the set-up is completed there remains a somewhat monumental task, that of selling the program to the people of the community. We have in mind one large community in which the persons directly named as heads and members of this or that committee have done their work well; they have planned a defense program that is workable, but the general public knows little or nothing about those plans. In the event of a disaster, we wonder what per cent of the population would know what to do; would there not be a mass gathering at the site of the disaster and at the evacuation and base hospitals? — just the very things that should be avoided. Even though your county is organized, it will be well to see to it that your public knows about your plans, that they may be advised as to what is expected of them in the event of a great disaster.

All research activities at the Indiana University Medical Center are now confined to projects having a military value, so it has been announced. Already a number of excellent results have been attained by the research staff.

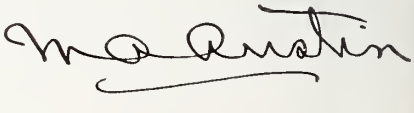
We are quite intrigued with this vegetable-therapy business. For many years we talked about the iron content of spinach, but chaps like Thurman Rice et al., put an end to most of that. Then along came other propaganda concerning other vegetables, each to have its short day. Just now the trend is to carrots, long used as an ingredient in soups, broths, etc., and all too often to thoroughly spoil a perfectly good dish of fresh garden peas. The carrot, just now, is having its big day; it is recommended for night-blindness, myopia and what not. Carrot juice bids fair to supplant other vegetable juices for the nonce, but it is our opinion that the tide again will turn and Indiana tomato juice will continue to be the favorite juice beverage of the nation.

Two letters were read at the last meeting of the Executive Committee, in which complaints were made as to the charges being made by doctors for visits to communities whose former M.D. had gone into the Army. In one instance the complaint was about mileage; and hard to beleive, the other complaint was about an M.D. from an adjoining community making calls for half what the former resident physician had charged. Of course, these matters are entirely local and should be settled by the county medical societies, but as a consultant in such matters it was felt by all members of the committee that any physician called to visit patients in such a professionally vacated community should give due consideration to the prevailing charges in that community. Overcharging for mileage is a frequent complaint. Fifty cents a mile was not too much during the horse and buggy day practice, but is hardly justifiable with gasoline and good roads. Men who cut rates and undercharge are usually incompetents whose services are not worth the small fees they may charge. Members of the various county societies might well remember that any serious complaints from any community will be only a further excuse for regimenting doctors for civilian as well as military service. The state office has for several years had frequent communications from smaller towns, where no physician is now located, complaining about young physicians who would stay only a short time and then move to a larger place. The communities have been to blame for this, as much or more than the physicians, for with the automobile joy rides from suburban to city places to attend shows and for shopping, the automobile crowd also got into the habit of seeing city doctors. About the only thing then that was left for the young fellow on the job in a small community was emergency cases and the care of those who could not afford an automobile. In most instances it has been a case of "move or starve."

President's Page

INTERROGATORY

In this twentieth century of economic theories, to give a more abundant life to everyone, one class has been overlooked or ignored completely—the graduate medical student who is given the responsibility of the lives of our hospital patients. The NYA gives the teen age students a subsidy of twenty-five dollars a month, while the WPA raises the ante to sixty and eighty dollars for common labor roles. Other alphabetical set-ups, too numerous to mention, bring civil service cheques to a greater multitude in accessory groups than were employed a decade ago in our entire governmental organization. And the pay for their slight training and lack of responsibility ranges from seventy-five to two hundred twenty-five dollars a month, and most of these are forty-hour-a-week jobs. IN CONTRAST TO THE ABOVE WE FIND THAT HOSPITALS EXPECT MEN AND WOMEN WITH TEN TO FOURTEEN YEARS OF HIGH SCHOOL, COLLEGE AND MEDICAL TRAINING TO DEVOTE ONE TO FOUR YEARS ADDITIONAL TIME AS INTERNS AND RESIDENTS, FOR A SUBSIDY OF LITTLE MORE THAN PIN MONEY FOR CIGARETTES AND AN OCCASIONAL PICTURE SHOW. Ten, fifteen and twenty-five dollar pay cheques once a month are the ruling average, not as much as a PWA gets for his eighty hours a month. Interns and residents have a seven-day week, half of which is on twenty-four-hour duty. If they are lucky they can sign out every other evening for a breathing spell, and possibly get a Sunday off twice a month. They not only give an average of ONE HUNDRED HOURS A WEEK on their job, but they must take chances that are greater than industrial hazards—the risk of death or disability from contagious and infectious diseases, WITH NO POSSIBILITY OF ANY WORKMAN'S COMPENSATION PROTECTING THEM. FOR THEIR WORK AND THIS RISK THEY ARE PAID FROM FIVE TO TWELVE CENTS AN HOUR. And this is about twice the amount that was paid only a few years ago. I acquired a malignant typhoid infection while completing my internship, caring for seventy-five typhoid cases who became infected at Montauk Point, Long Island, soldiers discharged from the Spanish-American War who were returning West and were taken from the trains in Chicago. My infection did not show up until a week after I left the hospital, and my illness at home from August to the following January, took all the savings I had laid aside for special work in Europe. New federal legislation now provides that all interns in government hospitals shall be paid seventy-five dollars a month, and this should be the minimum for all hospitals, both public and private, and their budgets should be made accordingly. Even the new NYA nurses-aid jobs pay twenty-five dollars a month. Of even greater importance is recognition of the fact that a young doctor has the same right to a normal life as any other person, and the restrictions of institutions to unmarried interns and residents should be done away with. A married intern or resident is a far better asset to any institution than a single man or woman. I am glad to see the change which has given women the respect they now receive when they become medical students, in comparison to the days when they were just "Hen Medics." Young people waiting until they are thirty or thirty-five years of age before getting married have nothing but a few transient memories for their celibacy. At a recent Alpha Omega Alpha meeting the majority of those honored were married junior and senior students, and all but one man had self-supporting wives. Many of these girls were also helping, by their work, to finance part of their husband's education expenses. WHY SHOULD THIS BRAVE CLASS OF YOUNG PEOPLE BE PENALIZED IN ANY MANNER? THE FINEST THING ANY INSTITUTION COULD DO WOULD BE TO PROVIDE APARTMENTS FOR THEIR MARRIED INTERNS AND RESIDENTS. If the state, the county, and the city of Indianapolis can build apartments for colored people with Federal assistance, such as the ones constructed east of the City and University Hospitals in Indianapolis, IT IS HIGH TIME THAT THE MEDICAL MEN AND WOMEN SERVING THESE SAME HOSPITALS BE GIVEN AS MUCH CONSIDERATION AS THE INDIANAPOLIS COLORED LABOR. Too many luxury hotel-hospitals have been built with terazzo floors and chromium-plated equipment out of savings in the unpaid and underpaid pittances given NURSES and YOUNG DOCTORS. THE LABORER MUST BE WORTHY OF HIS HIRE. AND HIS REMUNERATION MUST BE WORTHY OF THE SERVICE HE IS EXPECTED TO RENDER.



PROCUREMENT AND ASSIGNMENT OF PHYSICIANS

An Army Recruiting Board to establish officer personnel for the Medical Department of the Army is now operating in each state. This decentralization was adopted in order to expedite the procurement of physicians in meeting the urgent need and release the bottleneck in Washington.

The people of Indiana may well be proud of the hearty response and cooperative spirit of the medical profession. Almost universally the reaction of the physician individually and collectively is, "I am ready whenever I am needed." The need is here. Our program is going forward successfully and the board is functioning as it was expected to do, this notwithstanding the fact that there was no time in which to prepare for the intensive campaign.

Physicians are being classified into two main groups: those available and those not available. They are again classified into two age-groups: those thirty-seven years of age and under, and those from thirty-seven to forty-four, inclusive. Since 85 per cent of the medical officer personnel needed falls within the age-group of thirty-seven and under, those falling in that group are certified as a priority list; then some discretion is being used for the moment in certifying physicians from thirty-seven to forty-five.

Judgment is also exercised so as not to denude smaller communities and rural sections of physicians needed to care for civilian needs. Each district is considered from the standpoint of total population and the ratio of state population. On the basis of an anticipated need of a total of seven hundred doctors by January 1, 1943, it is easy to approximate the quota from each district. Since about 10 per cent will be found to be physically ineligible, more are certified than the anticipated actual need. The fact that a relatively larger proportion must come from the centers of population also must be considered.

When a physician is certified as available and fails to cooperate, his name is sent to the Surgeon General's Office, and the Selective Service System is requested to process him by re-classifying him into 1-A insofar as the factor of dependency is concerned, since that problem is eliminated by the fact that the minimum pay with allowances for an officer of the Medical Corps is $3,152 if he is married.

We believe that in Indiana there will be no necessity for exercising this prerogative, as has happened in some other states where the physicians were consequently inducted as "Buck" privates.

C. R. Bird, M.D., *Chairman*
Procurement and Assignment
Service for Indiana

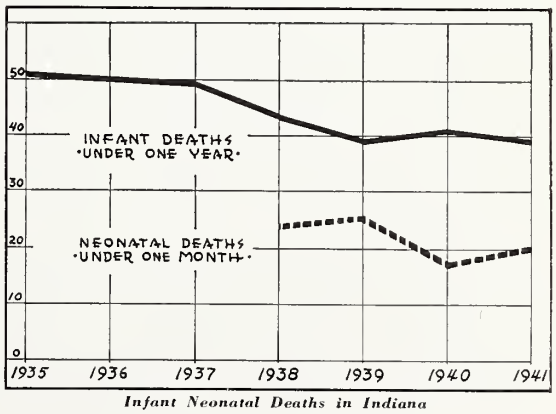
NEONATAL MORTALITY IN INDIANA FOR 1941*

This completes the fourth year of the study of causes of neonatal deaths in Indiana. This study was instituted by the Committee on Maternal and Infant Mortality of the State Medical Association, in cooperation with the Bureau of Maternal and Child-Health of the Indiana State Board of Health. Dr. James H. Hawk, who in the past has prepared this study, is now numbered among the United States Navy Medical Officers, therefore the study is now being continued by the Indiana State Board of Health.

Since the fourth year of the study of neonatal deaths has been completed, we may now look back and expect to find some reliable and significant information regarding trends (Chart I). It is gratifying to find that the infant death rate has continued to decline, but it is more than gratifying to find that the neonatal death rate has decreased. The infant death rate which was 42.7 per thousand live births in 1935, has dropped to 39.7 per thousand live births. The neonatal death rate which was 24.2 per thousand live births in 1938, the year the studies were begun, has dropped to 20.7 per thousand live births.

Although we seem to be making progress in our efforts to reduce the mortality of infants under one month, we must still continue our efforts to understand the causes of neonatal death, in order that the number may be reduced to the irreducible minimum. In 1941 neonatal deaths made up 3.4% of

CHART I



Infant Neonatal Deaths in Indiana

* This study was prepared for the Indiana State Board of Health by R. E. Jewett, M.D., assistant chief of Bureau of Maternal and Child Health.

TABLE I

CAUSES OF NEONATAL DEATH BY DEATH CERTIFICATE QUESTIONNAIRE SURVEY AND AUTOPSY REPORTS

Cause	State Death Certificate		Questionnaire Survey		Autopsy Reports	
	Number	Per cent	Number	Per cent	Number	Per cent
Total — All Causes	1367	100	1196	100	107	100
Prematurity (No Pathology)	707	51.7	617	51.5	29	27
Asphyxia and Atelectasis	189	13.8	158	13.2	15	14
Birth Injury	162	11.8	148	12.3	13	12
Congenital Malformation	132	9.6	128	10.7	37	35
Hemorrhagic Disease	41	3.0	37	3.1	8	7
Gastro-intestinal Disease	31	2.2	27	2.2	2	2
Respiratory Disease	11	1.0	6	.5	1	1
Other Specified Causes	16	1.1	14	1.1	.....	.....
Unknown or Unclassifiable	78	5.7	61	5.1	2	2

all deaths in the State, and 53% of all infant deaths. The neonatal deaths were largely due to intrinsic prenatal and natal causes. Stillbirths, which are certainly related neonatal death causes, were equal in number to the neonatal deaths. Together, neonatal deaths and stillbirths made up 7% of all deaths. It is therefore necessary that we continue in our efforts to understand the causes of these deaths.

During 1941 there were 1367 deaths of infants under one month of age reported by death certificate. Questionnaires were sent to the physicians reporting these deaths, and 1196 returned the questionnaires filled out completely or in part. This was a return of questionnaires for the study of 87.5%, an all-time high for the four years during which the study has been conducted.

Much of the information available from the death certificates and the questionnaires may be quickly passed over since the information does not permit technical analysis. There were 1274 deaths of white infants, 89 negroes, and 4 of other races. Deaths among children born to primiparous and multiparous mothers were nearly equal in number. There were 864 males and 503 females, a discrepancy which is significant, but not understood.

Deaths reported by the official certificate and by questionnaire were studied for causes (Table I), and since there were 107 autopsy reports, the causes thus determined were compared to all causes. Causes of death associated with the prenatal and natal periods continue to predominate. Where autopsies were done, congenital malformations appear in a higher percentage of cases than where the diagnosis was clinical. Prematurity was less frequently a diagnosis in autopsy reports. This might indicate that a larger number of prematures than we suspect have anomalous conditions, or it might simply mean that fetal development was incomplete at the time of delivery. Congenital debility, an ever inadequate diagnosis, appeared only four times, and syphilis was the cause of death in only seven instances.

Approximately 60% of the deliveries occurred in hospitals, and approximately 40% were in the home (Table II). The number of prematures and full-term infants born in either place was about equal. Since from 50 to 60% of all infants are born in the hospital, it would seem that death from prematurity is as likely in the hospital as it is in the home. Since we do not know the sizes or types of hospitals in which deaths of prematures occurred, we can only speculate that there is a general need for improvement in the care and facilities for premature infants.

TABLE II

NEONATAL DEATHS BY PLACE OF DELIVERY
QUESTIONNAIRE SURVEY

Place of Birth	Total All Deaths		Full Term		Premature	
	No.	Pct.	No.	Pct.	No.	Pct.
Totals	1196	100%	579	100%	617	100%
Hospital	717	59.9	350	60	367	59
Home	475	39.8	227	39	248	40
Unknown	4	.3	2	1	2	1

The greatest number of neonatal deaths occurred during the first twenty-four hours after delivery (Table III), and 88.5% of the infants died before the end of the first week. Of these, 76% died of natal or prenatal causes, such as prematurity, asphyxia, birth injury, and congenital malformation. Only 4% died of diseases acquired after birth.

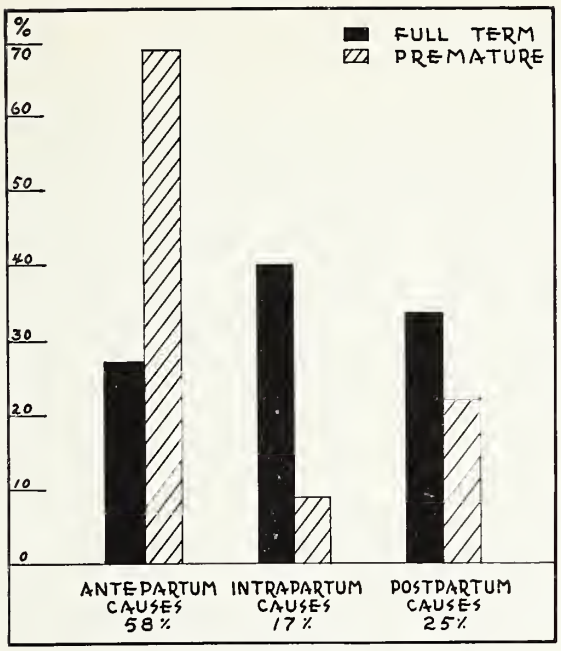
TABLE III

NEONATAL DEATHS BY AGE AT DEATH

Age at Death	Number	Per cent
Totals	1367	100%
Under 1 Day	709	51.8
1 Day	163	11.9
2 Days	132	9.7
3 Days	72	5.3
4 Days	35	2.5
5 Days	41	3.0
6 Days	36	2.6
7 Days	23	1.7
1-2 Weeks	81	5.9
2-4 Weeks	75	5.5

Deaths were related to causes arising in the antepartum period in 58% of the cases (Chart II), and in these the primary cause of death was usually given as prematurity. Intrapartum causes contributing to the death were 17%, and the primary cause of death was reported as birth injury, or asphyxia. Of 306 deaths due to intrapartum causes, 47% were delivered spontaneously, and 49% were delivered by forceps, breech extraction, version, or cesarian section. We cannot, therefore, always attribute intrapartum causes of death to operative interference. Since premature birth is the primary or contributory cause of death in most

CHART II



Causes Reported as Contributing to Neonatal Deaths, Questionnaire Survey

of the cases reporting, the cause of the premature birth merits the most consideration.

In 426 of the questionnaires received, prenatal causes for the premature birth were given (Table IV). Overactivity, injury and surgery is frequently given as a cause of premature birth. Intercurrent disease of the mother, not related to the pregnancy, such as pneumonia, pelvic inflammatory disease, tuberculosis, heart disease, and diabetes, appears as an important cause of premature birth. Toxemias, and placental anomalies and accidents, are important causes. Multiple pregnancy appears prominently. Syphilis, which at one time was given the credit for many premature births, appears as a cause in only 2% of the cases.

Lack of prenatal care does not, at first analysis, appear prominently (Table V). However, most of the deaths were due to prematurity, and a significantly large number of the mothers who had inadequate prenatal care gave birth to premature infants —67%. Prematurity is less prominent as a cause of death where the mother had adequate prenatal care, although other natal and prenatal causes of death appear in greater numbers.

TABLE IV

CAUSES OF PREMATURE BIRTH. QUESTIONNAIRE SURVEY

Causes	*Number*	*Per cent*
Total, All Causes	426	100%
Overactivity, Injury, Surgery	139	33
Placenta Praevia and Abruptio	75	18
Intercurrent Maternal Disease	58	13
Premature Rupture of Membranes	48	11
Toxemia and Eclampsia	43	10
Multiple Pregnancy	33	8
Abortion and Hysterotomy	19	4
Syphilis	7	2
Other Specified Causes	4	1

TABLE V

PRENATAL CARE AND CAUSES OF DEATH

Cause of Death	*Inadequate Prenatal Care*		*Adequate Prenatal Care*	
	No.	*Pct.*	*No.*	*Pct.*
Total (1067 Reports)	500	100%	519	100%
Prematurity	333	67	220	42
Asphyxia and Atelectasis	54	11	98	19
Birth Injury	46	9	87	17
Congenital Malformation	35	7	79	15
Other Specified Causes	32	6	35	7

(No information regarding prenatal care in 177 cases.)

SUMMARY AND CONCLUSIONS

During 1941 there were 1367 neonatal deaths reported in Indiana. These deaths were surveyed by questionnaire, and 1196, or 87.5%, were returned for analysis.

Although the neonatal death rate remained static for many years, the death rate in Indiana dropped from 24.2 per thousand live births in 1938, to 20.7 in 1941.

Natal and prenatal causes of death predominate, and premature birth is the most common. A greater effort to reduce the instances of premature birth and better provisions for care of the premature newborn are indicated.

Reports from 107 autopsies indicate that some premature infants may have occult congenital defects.

Syphilis can no longer be considered a prominent cause of premature birth or neonatal death.

Whether delivery occurred in the home or in the hospital seems to have little bearing on the instance of neonatal death.

Most neonatal deaths occur in the first twenty-four hours or during the first week of life, and of these 76% died of prematurity, asphyxia, birth injury, or congenital malformation.

Adequate prenatal care seems to give some, but not complete, insurance against premature labor and delivery.

Put your dimes and dollars into the front line of battle
by buying United States Defense Bonds and Stamps

MATERNAL MORTALITY IN INDIANA FOR THE YEAR 1941*

During 1941 there were 160 maternal deaths and 65,681 live births in Indiana. The maternal death rate was 2.6 per 1,000 live births. As in the past, questionnaires were sent to all physicians reporting maternal deaths. One hundred thirty-seven questionnaires were returned, a response of 85.5 per cent.

A review of this available information, combined with that obtained from the death certificates, revealed the following to be the major causes of maternal mortality:

Toxemia of Pregnancy	52	32.5%
Hemorrhage	38	23.7%
Infection	29	18.1%
Pulmonary Embolism	16	10.0%
Heart Disease	12	7.5%
Pneumonia	6	3.7%
All other Causes	7	4.4%

Toxemia: Nearly one-third of the maternal deaths were associated directly with the toxemias of pregnancy. Of this group twenty-nine were patients with eclampsia, and the remaining twenty-three were non convulsive toxemias. Eclampsia then forms the largest single cause of maternal mortality in Indiana.

Hemorrhage: The second major cause of death during this year was hemorrhage. In this group of patients postpartum hemorrhage, together with hemorrhage during operative delivery and resultant shock, accounted for sixteen deaths. Hemorrhage from abortion and ectopic pregnancy caused death in eleven instances. Placenta praevia in eight and abruptio placentae in three instances were the remaining causes of fatal hemorrhage.

Sepsis: Infection ranks third in the causes of maternal death. Fourteen of the twenty-nine fatal infections followed abortion. The remainder were subsequent to termination of pregnancy after the period of viability. Pulmonary embolism, which in many instances was related to infection, accounted for sixteen additional deaths.

Intercurrent Disease: Medical complications present in the prenatal individual or occurring during pregnancy or after delivery was responsible for the remaining deaths. In this group the largest single cause was heart disease and this accounted for 12, or 7.5 per cent, of the total deaths. Pneumonia was responsible for six deaths. Diabetes, encephalitis, meningitis, status epilepticus, and rupture of a congenital aneurysm of the circle of Willis accounted for one death in each instance. Intestinal obstruction was the cause of death in two undelivered patients.

Cesarean Section: More deaths were associated with cesarean section than with any type of delivery other than low forceps and natural spontaneous delivery. Twenty-seven patients died following cesarean section, nine of these were in the toxemia group, seven in the group dying of hemorrhage, seven in those dying as the result of infection, two of heart disease and one with pulmonary embolism. There were only four deaths reported following version, and only three following mid- or high-forceps operation. Twenty-six patients died undelivered. Eighteen patients died following abortion, and four patients following laparotomy and extra-uterine pregnancy.

SUMMARY

It would seem that further reduction in maternal mortality in Indiana rests primarily in two fields:

1. Better control and more adequate treatment of the toxemias of pregnancy.
2. Increasing provision for the prevention of hemorrhage, and increasing facilities for immediate replacement of blood volume.

* Prepared for the Indiana State Board of Health by Carl P. Huber, M.D., of Indianapolis.

ABSTRACT

FINDS THAT DIABETIC PATIENTS ARE NOT PREDISPOSED TO BOILS AND CARBUNCLES

The prevailing impression among both physicians and laymen that boils and carbuncles are commonly associated with diabetes and that the diabetic are predisposed or more likely to suffer from these pyogenic skin infections than are the nondiabetic is not supported by clinical investigation, John R. Williams, M.D., Rochester, N. Y., reports in the April 18 issue of *The Journal of the American Medical Association.*

Dr. Williams made a study of 500 diabetic patients admitted to both office and hospital practice with reference to the incidence and occurrence of the pyogenic skin infections diagnosed as boils and carbuncles.

"In only one instance," he says, "did the onset of a boil coincide with the discovery of diabetes. In all the other cases, except one, both boils and carbuncles occurred long after the onset of diabetes and apparently as an independent and unrelated phenomenon. In the one case the carbuncle occurred ten years before the onset of the diabetes.

"Although the numbers of cases in this study are small, they support the opinion and conclusions of other workers who have examined the question. They are as follows:

"1. The prevailing assumption that diabetes mellitus predisposes an individual to pyogenic skin infections is not supported by clinical investigation.

"2. Pyogenic skin infections occur no more frequently in diabetic than in nondiabetic individuals.

"3. Both of these complications [boils and carbuncles] occurred more frequently in the middle aged and elderly in whom a general breakdown was evident. . . ."

WHAT WENT ON DURING WORLD WAR I

Items from THE JOURNAL of June, 1917

Frank W. Foxworthy, Indianapolis, discussed "Gastro-Intestinal Diseases Along the Border." He had served as Major and Chief Surgeon of the Indiana National Guard, which organization had taken part in the "Border Patrol" just prior to our entrance into World War I. There had been no little complaint registered concerning the lack of proper equipment, both at the camps and on the trains enroute to the border, especially adequate and hygienic cooking equipment.

* * *

J. D. Heitger, Bedford, wrote on "The Diagnosis of Maxillary Sinusitis."

* * *

Editor Bulson had quite a bit to say concerning "Medical Slackers"; his editorial commenting on the fact that the younger men were not responding to the call for enlistment in the Medical Reserve Corps, but that the older men were doing more than their share in such enlistments.

* * *

Another editorial had to do with comment on the fact that only "real" doctors were being called to service, that the irregulars and the cultists had not been included in the call.

* * *

Dr. B. D. Ravdin had returned to Evansville, following five months of post-graduate work in Philadelphia.

* * *

The Indiana University Medical School was to have a new building, Governor Goodrich having announced that $300,000 would soon be available for this purpose.

* * *

The Federal Government had begun publication of *The Official Bulletin*, chief purpose of which was to disseminate official news regarding the various war activities.

* * *

It had been announced that there were openings for some two thousand young medical officers in the Army Medical Corps, and that after January first the age limit for this service would be thirty-two years. These posts were to be of a permanent character.

* * *

It had been estimated that the United States Army would reach a total of more than two million men ere the end of the present war.

* * *

Every able-bodied medical man in the country was being urged to offer his services during the war.

* * *

The Surgeon General of the Army had advised that too many medical men were enlisting "in case of emergency" and "for their specialty only."

Again the editor rails about the self-laudation of so many medical men, via their home-town papers. Seems that certain editors were critical of the fact that doctors do not advertise, yet are not averse to "free advertising."

* * *

The attack upon Red Cross ambulances in the European battlefields came in for a drastic comment from the editor.

* * *

Dr. David Joseph Cummings, Medora, had died at the age of seventy-one.

* * *

Clay County physicians had announced a new fee bill, for the most part the fees being "upped."

* * *

Dr. L. Overshiner, Summitville, had been appointed an intern at the Robert W. Long Hospital.

* * *

Dr. M. H. Krebs, Huntington, had been commissioned as major in the Medical Reserve Corps.

* * *

Dr. Paul F. Martin had returned to Indianapolis after a several months' service in Bohemia and Austria.

* * *

The duties of Medical Reserve Officers were outlined in another editorial.

* * *

Dr. Forrest J. Pinkerton, Westville, first lieutenant in the Medical Reserve Corps, had been assigned to service in the Hawaiian Islands. (Dr. Pinkerton recently was acclaimed for his work with the Honolulu blood bank, which was instrumental in the saving of hundreds of lives at "Pearl Harbor.")

* * *

Dr. Will C. Moore arrived home after a long surgical service in Austria. Immediately upon his arrival he announced that he would apply for a commission in the Medical Reserve Corps.

* * *

The Union Hospital, Terre Haute, had offered the entire plant to the Government for the duration.

* * *

Dr. George F. Bicknell, East Chicago, had sailed for France, for service in a Base Hospital.

* * *

Medical instruction camps had been opened at Forts Benjamin Harrison and Riley, and scores of recently-enlisted medical officers had been sent to these points.

* * *

The Mayo Foundation had offered a completely equipped field hospital for Army services.

* * *

Six of the base hospitals, organized by the American Red Cross, had been ordered to foreign duty.

SOME EARLY AMERICAN MEDICAL AUTHORS

EDGAR F. KISER, M.D.
INDIANAPOLIS

(This is a continuation of the series on this subject published in the earlier issues, and it will be continued in subsequent issues.—Editor's Note.)

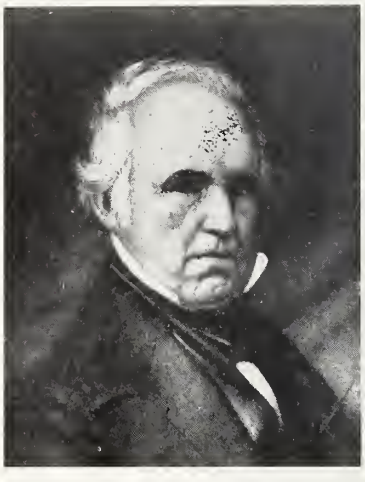
AMOS TWITCHELL: HIS COPY OF BEAUMONT

Addressing a meeting of the New York Academy of Medicine, October 5, 1933, Dr. Walter Cannon said, "We have met together this evening to commemorate, not the birth or death of a great man, but the hundredth anniversary of the publication of a book." A particular copy of that book is the subject of my essay.[1]

The first copy of Beaumont which I acquired, a first edition with the Plattsburg imprint, came from England through a Chicago bookseller in 1933, just one hundred years after its publication. The work is especially remarkable, if we remember that at the time of St. Martin's accident the knowledge of the physiology of digestion was just emerging from the period in which the famous William Hunter, lecturing before a group of his contemporaries, explained that "Some physiologists will have it that the stomach is a mill, others that it is a fermenting vat, others again that it is a stew pan, but in my view of the matter, it is neither a mill, a fermenting vat, nor a stew pan, but a stomach, gentlemen, a stomach."

It was only one year before Beaumont made his first experiment that Prout had demonstrated the presence of hydrochloric acid in the gastric juice, and just two years after the publication of Beaumont's book that Theodor Schwann discovered pepsin. These facts, coupled with our knowledge of the adverse circumstances under which Beaumont worked and the crude instruments which he used, made his achievement "one of the romantic episodes in the history of medicine," and made the book in which he recounts his experiences one of the most treasured volumes in the library of the collector.

Having acquired a copy of the Plattsburg edition, I immediately sought one with the Lilly and Waite cancel title-page. Myer,[2] in his life of Beaumont, says that it is much scarcer than the Plattsburg edition, and my experience bore out his statement. Just last year I obtained a copy, but I was well rewarded for my patience. Except for a few stains, it is in remarkably fine condition, bound in tan boards with a maroon cloth backstrip and a paper label "Beaumont on the Gastric Juice." Far more important than its pristine state,



Dr. Amos Twitchell

however, is the fact that it was the personal copy of Amos Twitchell.

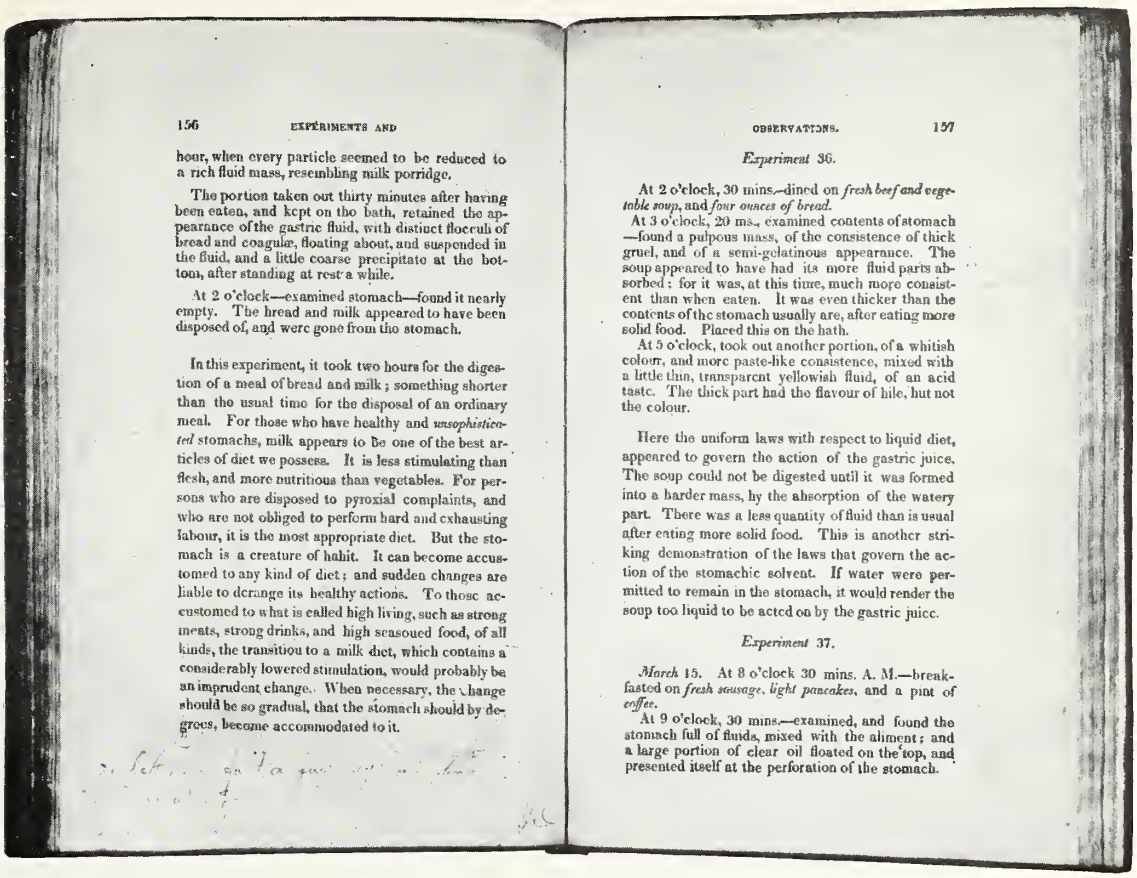
Among the lesser celebrities of early nineteenth century American medicine, Twitchell is remembered largely because of his having first successfully tied the common carotid artery. This particular episode was one of those accomplishments born of necessity, which, had it failed, would have reflected no discredit on the operator but, having succeeded, graved his name on the portals of the minor hall of medical fame.

Born in Dublin, New Hampshire, April 14, 1781, the son of Samuel and Alice Wilson Twitchell, at seventeen he sought entrance to Harvard College, but was denied admission because of insufficient preliminary education. The circumstance was probably a fortuitous one, for he turned next to Dartmouth. There his application was accepted and he was admitted in 1798, and there he met and formed a life-long friendship with Dr. Nathan Smith, one of the greatest of early American physicians. It was Dr. Smith, it will be remembered, who organized the Medical Department of Dartmouth College in 1798, lecturing on anatomy, surgery, chemistry and physics, occupying, as Oliver Wendell Holmes said, "not a chair but a divan." After his graduation from Dartmouth in 1802, Twitchell began the study of medicine under the preceptorship of his friend Nathan Smith.

Twitchell reciprocated Dr. Smith's many kindnesses by supplying liberal quantities of dissecting

[1] Beaumont, William, M.D.: Experiments and Observations on the Gastric Juice, and the Physiology of Digestion, Boston, Lilly and Waite Company, 1834.

[2] Myer, Jesse S., M.D.: Life and Letters of William Beaumont, St. Louis, C. V. Mosby Company, 1912.



156 EXPERIMENTS AND

hour, when every particle seemed to be reduced to a rich fluid mass, resembling milk porridge.

The portion taken out thirty minutes after having been eaten, and kept on the bath, retained the appearance of the gastric fluid, with distinct flocculi of bread and coagulæ, floating about, and suspended in the fluid, and a little coarse precipitate at the bottom, after standing at rest a while.

At 2 o'clock—examined stomach—found it nearly empty. The bread and milk appeared to have been disposed of, and were gone from the stomach.

In this experiment, it took two hours for the digestion of a meal of bread and milk; something shorter than the usual time for the disposal of an ordinary meal. For those who have healthy and *unsophisticated* stomachs, milk appears to be one of the best articles of diet we possess. It is less stimulating than flesh, and more nutritious than vegetables. For persons who are disposed to pyroxial complaints, and who are not obliged to perform hard and exhausting labour, it is the most appropriate diet. But the stomach is a creature of habit. It can become accustomed to any kind of diet; and sudden changes are liable to derange its healthy actions. To those accustomed to what is called high living, such as strong meats, strong drinks, and high seasoned food, of all kinds, the transition to a milk diet, which contains a considerably lowered stimulation, would probably be an imprudent change. When necessary, the change should be so gradual, that the stomach should by degrees, become accommodated to it.

OBSERVATIONS. 157

Experiment 36.

At 2 o'clock, 30 mins.—dined on *fresh beef and vegetable soup*, and *four ounces of bread.*

At 3 o'clock, 20 ms., examined contents of stomach—found a pulpous mass, of the consistence of thick gruel, and of a semi-gelatinous appearance. The soup appeared to have had its more fluid parts absorbed: for it was, at this time, much more consistent than when eaten. It was even thicker than the contents of the stomach usually are, after eating more solid food. Placed this on the bath.

At 5 o'clock, took out another portion, of a whitish colour, and more paste-like consistence, mixed with a little thin, transparent yellowish fluid, of an acid taste. The thick part had the flavour of bile, but not the colour.

Here the uniform laws with respect to liquid diet, appeared to govern the action of the gastric juice. The soup could not be digested until it was formed into a harder mass, by the absorption of the watery part. There was a less quantity of fluid than is usual after eating more solid food. This is another striking demonstration of the laws that govern the action of the stomachic solvent. If water were permitted to remain in the stomach, it would render the soup too liquid to be acted on by the gastric juice.

Experiment 37.

March 15. At 8 o'clock 30 mins. A. M.—breakfasted on *fresh sausage, light pancakes*, and a pint of *coffee.*

At 9 o'clock, 30 mins.—examined, and found the stomach full of fluids, mixed with the aliment; and a large portion of clear oil floated on the top, and presented itself at the perforation of the stomach.

Reproduction from Amos Twitchell's copy of "Beaumont on the Gastric Juice."

material. Bowditch[3] dwells at length on Twitchell's courage and prowess in this pursuit, condoning a practice which was common at the time and offered the only means of procuring anatomical material. Prouty[4] in his biographical sketch of Twitchell, says naively, "At that time material for dissection was hard to obtain but Twitchell possessed all he needed." All of his biographers stress his extreme poverty during childhood and youth, and it is probable that his activities as a resurrectionist were dictated by dire necessity.

After Twitcheil received his diploma he began the practice of medicine at Norwich, Vermont, very near Hanover, in order that he might remain close to Dr. Smith. Later he went to Marlborough and eventually to Keene, New Hampshire, where for more than forty years he practiced with great success. One of his contemporaries says that he probably covered more miles in his daily practice than any other physician in New England. So extensive was his circuit that he had horses stationed at various places on the main road and changed them as did the drivers of stage coaches. It is said that at times he covered as much as one hundred fifty miles in a single day.

The operation which made Twitchell famous deserves comment. In October, 1807, he was called to assist in the care of a young man who had had his jaw fractured by a pistol shot. On the tenth day after the accident Twitchell noticed, while dressing the wound, that portions immediately overlying the carotid artery were suppurating. The boy's mother, quite an elderly woman, was the only attendant. The doctor called her attention to the condition of the wound and said, "If that spot goes through the coats of the vessel, your son may bleed to death in a very few minutes." In his published paper[5] he recounts the subsequent course of the patient, who eventually recovered:

"I applied the usual dressings, left the room, and was about leaving the house, when someone of the family cried out that he was bleeding. I hastened back to his room and found him deluged with blood. The dressings were immediately removed, and the blood jetted forcibly, in a large stream, to a distance of three or four feet. With the thumb of my left hand I instantly compressed the artery against the base of the skull, and thus effectually controlled the hemorrhage. The patient had fainted, and fifteen or twenty minutes

[3] Bowditch, Henry I., M.D.: Memoir of Amos Twitchell, M.D., Boston, John Wilson and Son, 1851.

[4] Kelly, Howard A., and Burrage, Walter L., M.D.: American Medical Biographies, Article by Ira J. Prouty, Baltimore, The Norman, Remington Company, 1920.

[5] Twitchell, Amos, M.D.: Ligature of the Common Carotid Artery, *New Engl. Quart. Jour. Med. and Surg.*, Boston, 1842-43.

had elapsed before he was so much revived that I dared to make any attempt to secure the artery. Then still keeping my thumb firmly pressed on the orifice, I proceeded to clear the wound from blood; and, having done this, I made an incision, with a scalpel, downward, along the course of the artery, to more than an inch below the point where the external branch was given off which, as stated above, had been destroyed at the time of injury. Having but one hand at liberty, I depended upon the mother of the patient to separate the sides of the wound, which she did, partly with a hook and occasionally with her fingers. At length, partly by careful dissection and partly by using my fingers and the handle of the scalpel, I succeeded in separating it. I raised it up sufficiently for my assistant to pass a ligature around it. She tied it with a surgeon's knot as I directed at about half an inch below the bifurcation.

"I removed my thumb and sponged away the blood, not doubting that the hemmorrhage was effectually controlled, but, to my surprise and disappointment the blood began to ooze from the rupture in the artery; and in less than ten minutes it flowed with a pulsating jet. I compressed it again with my thumb, and began to despair of saving my patient. What further could I do, it was impossible to apply a ligature above the orifice; compression, then, was the only alternative. How was that to be effected? Should someone sit by the patient and compress the artery constantly with the fingers until adhesion should take place? Possibly that might have been done; but I resolved to make another attempt first. Raising my thumb, I placed a small piece of dry sponge directly over the orifice in the artery; and, renewing the compression till a little larger piece of sponge could be prepared, I placed that upon the first; and so went on pressing the gradually enlarged pieces obliquely upwards and backwards against the base of the skull, till I had filled the wound with a firm cone of sponge, the base of which projected two or three inches externally. Then I applied a linen roller in such a manner as to press firmly upon the sponge, passing it in repeated turns, over the head, face and neck. I directed that the patient should be placed in bed, with his head moderately raised and that he should be kept as quiet as possible; and as his pulse was very feeble, he having lost at that time between three and four pounds of blood, by estimation, he was allowed a little wine and water and occasionally some broth. We carefully watched him through the night but no bleeding occurred and he complained of but little pain." As I have said, the patient made a complete recovery.

This was one of a very few papers ever published by Dr. Twitchell, and while this was the story of his outstanding accomplishment, he had many sterling qualities which have perpetuated his memory. The fact that Bowditch felt that he merited an extended memoir was in itself a sufficient mark of distinction.

Several of Twitchell's biographers hint that he reciprocated Nathan Smith's kindnesses in a degree far out of the ordinary. An anonymous eulogist[6] says, "Our associate seems, in his relations with the family of his deceased master in physic, to have fully comprehended the meaning of the far famed oath of Hippocrates, wherein he promises that for the sake of the love he bears for his teacher, in the holy art of medicine he will devote himself to the children and family of his master as if they were his own."

The same writer epitomizes Twithell's character in the following paragraph: "He was as remarkable for his powers of diagnosis as he was for his prompt and efficient treatment. He was bold, but not rash, fearless in following even an unknown path, when his genius told him he was right. A sincere lover of truth, he acted and spoke it, sometimes to his own detriment. A cordial hater of all hypocrites, he would have nothing to do with them, and delighted in exposing them with touches of exquisite humor. Holding in reverence true and undefiled religion, he yet rarely attended church. He talked little of religious dogmas; he acted to his utmost a Christian life.

"As he was a warm friend, so he could be, as Johnson says, 'A good hater.' He was too noble to be unjust even to an enemy, and he never expressed merely personal pique in regard to anyone." He died May 26, 1850.

So much for Amos Twitchell.

His copy of Beaumont bears on the inside of the front cover the penciled signature "Dr. Amos Twitchell, Keene, N.H." and beneath it in the same hand, the name "Judge Joel Parker." Whether or not this denotes joint ownership, is not known. In the upper right-hand corner of the first end-paper, written in jet black ink, appear the words "January 8, price $2.00." Unfortunately, the year is not recorded but it is reasonably certain that it was purchased in 1835. The Plattsburg edition was published late in 1833, and the edition with the Lilly and Waite cancel title-page in 1834. Written in pencil at the bottom of the last page of the book are the words, "Read the foregoing pages between the 8th and 14th January, 1833." This is obviously an error and only serves to confuse the issue. The price of two dollars recorded by Twitchell corroborates William Snow Miller's statement that that was the price of the book. In a note in Miller's well-known essay on Elisha North and his copy of Beaumont,[7] he says, "Two dollars was the retail price of the book. I find on January 11th, 1834, the Rev. Joseph Kemper, missionary Bishop in the Protestant Episcopal Church for the Northwest Territory, while on tour

[6] Medical Communications of the Massachusetts Medical Society, Vol. IV, Part II, Boston, John Wilson, 1850.

[7] Miller, William Snow: William Beaumont and His Book, Elisha North and his Copy of Beaumont's Book, *Annals of Medical History*, New Series, No. I, Vol. I, 1929.

to Green Bay, Wisconsin, bought a copy for that amount. (*Wis. Hist. Col.*, 14:397, 1898.)"

In a recently published article entitled "How to Mark a Book," Mortimer Adler,[8] famed philosopher and author, says: "Reading a book should be a conversation between you and the author. Presumably he knows more about the subject than you do but don't let anybody tell you that a reader is supposed to be solely on the receiving end. Understanding is a two-way operation. The learner has to question himself and the teacher. Marking a book is literally an expression of your differences or agreements with the author."

Twitchell anticipated Adler by a century, for he marked his copy of Beaumont in a way that leaves no doubt that there were many statements in the book which he was unwilling to accept. Practically every page shows the earmarks of careful study. Scarcely a paragraph is without a notation of some sort; often there is merely a check or question mark but usually there is a word or two. "True," "Nonsense," "Note," "Doubtful," are the commonest words, but quite a few pages carry an entire sentence. Some of these extended comments are controversial, but often they merely summarize in a few words the author's statement. At the end of the third section of the book, a three page discussion of satisfaction and satiety, Twitchell has written, "The foregoing section is a mixture of truth and error."

Experiment 23 of the second series establishes, in Beaumont's opinion, that "the stomach contains no gastric juice in a free state when ailment is not present." He enlarges upon the premise, "If, as is contended by some, a *part* of the fluid be discharged into the stomach during a fast, I see no reason why nature should withhold the other part. If we may be allowed to argue, independent of more certain data, one great objection to the opinion that the stomach contains gastric juice, in a free state, when food is withholden from it, exists in the danger of its passing out through the pyloric orifice; and thus depriving the succeeding meal of the benefit of its solvent action. It is probable that the pyloric orifice opposes no resistance to its egress; but is obedient to its summons. In this way, we may account for its admitting chyme, which is an admixture or rather combination of gastric juice and food, to obey the expulsive motions of the stomach, and pass out. They both appear to excite the peculiar action of the pyloric end of the stomach, mentioned in a former part of this work. Besides, there would be danger of the gastric juice being weakened, by the introduction of large quantities of water, or other fluids, in the intervals of eating, and thus lose its energy and concentrated solvent properties." Following this discussion, Twitchell has written. "But how is it when large quantities of cold water are drunken during the meal? good doctor."

Beaumont occasionally philosophizes on matters pertaining to diet and dietetic habits. Following Experiment 35 in the second series he comments, "For those who have healthy and *unsophisticated* stomachs, milk appears to be one of the best articles of diet we possess. It is less stimulating than flesh, and more nutritious than vegetables. For persons who are disposed to pyrexial complaints, and who are not obliged to perform hard and exhausting labour, it is the most appropriate diet. But the stomach is a creature of habit, it can become accustomed to any kind of diet; and sudden changes are liable to derange its healthy action. To those who are accustomed to what is called high-living, such as strong meat, strong drinks and high seasoned foods of all kinds, the transition to a milk diet, which contains a considerable lowered stimulation, would probably be an imprudent change. When necessary, the change should be gradual, that the stomach should by degrees, become accommodated to it." At the side of this paragraph Twitchell has written, "very true" and below the notation "or let them fast a few days on bread and water and try the milk in small quantities at first—increasing."

Experiment 46 of the second series concerns itself with the solvent action of gastric juice and with the effect that temperature has on this solvent action. Concerning this Beaumont says, "That the cold gastric juice should not act at all, or but very imperfectly on aliment, is no proof, in my opinion, that it does not possess solvent powers, even on the admission that it is a *debatable* question. There are but a few chemical combinations that do not require caloric to effect their operations, and none perhaps, that are not facilitated by it. Some, and indeed many of them, require an intense heat. I am under the impression, though I have never fairly tested the truth of it, that gastric juice would, in a sufficient length of time, act on aliment in a cold state. But I am not anxious to contend for any extraordinary or unnecessary powers of this fluid. Nor is it necessary to prove that it will act on cold substances, or in cold situations. It is perfectly manifest, that its operation is that of a chemical agent; that it dissolves aliment out of the stomach, when the warmth and motions of that organ are imitated; and that it changes the various and heterogeneous articles, submitted to its action, to an uniform, homogeneous semifluid, varying, however, slightly in colour and consistence, according to the aliment used." Twitchell's comment reads, "Here Dr. B. assumes a good deal and makes assertions not true."

Beside one rather unconvincing paragraph on the relative digestibility of vegetables and meats, Twitchell has written, "What then." I feel sure that it was intended to convey the same idea as does our present slang expression "so what."

As is generally known, Dr. Beaumont concluded

[8] Adler, Mortimer J.: *Saturday Review of Literature*, (July 6) 1940.

his book with fifty-one inferences drawn from his experiments and observations. Sixteen of these Twitchell has evidently accepted as axiomatic, for he has not marked them in any way. Twenty have received the stamp of approval by having the word "true" written beside them. Five inferences are merely checked, and the remaining ten have question marks at the side. It is obvious that Twitchell was a careful student and a severe critic.

I know of no extant copy of Beaumont, other than the one which I have described, which was owned and annotated by a well known contemporary, and, so far as I can determine, there has been no published account of such a copy.

UNDER THE CAPITOL DOME

TRANSIENT WORKER HEALTH PROBLEM

Dr. John W. Ferree, secretary of the Indiana State Board of Health, and other health authorities are looking ahead to the 1942 transient farm labor situation with a vigilant eye. Each year hundreds of transients come to Indiana to work in the sugar beet and tomato districts. Most of them come from across the Ohio River.

Heretofore Indiana's transient workers have presented no serious health problem, and health officials of this state have not been required to take any unusual precautions, as have authorities in some other states. Dr. Ferree pointed out that Michigan health officials stop the transients, most of whom are Mexicans, at the state line for a health check-up. This sort of thing, however, has been unnecessary thus far in Indiana. However, Doctor Ferree said, it is impossible to say at this time what the transient worker situation will be this year. Economic conditions are completely upset from normal in Indiana, a result of the establishment of so many war industries, with their new workers and their housing problems, and a result of a disrupted farm labor situation caused by the depletion of the supply of normally available native workers. Nobody knows now whether there will be an influx of transient labor, seeking work in Indiana fields. The need for farm labor may be met by a "home supply," comprising high school students, or even women. This is one of the things that apparently cannot be foretold yet.

The setting for a possible difficult situation exists particularly in the Columbus, Franklin and Edinburg area, which already is crowded and which is a very important tomato crop district. Housing already is a major problem. "Right now there is no particular evidence of a problem," Dr. Ferree said. "It is hard to tell what the situation will be. It may be more acute than before; it may not. We are simply watching and will not be caught off guard."

The upset economic conditions resulting from Indiana's leading position in the defense industry set-up is increasing the venereal disease problem and has resulted in expanded efforts by the State Board of Health to meet the situation. For one thing Dr. Ferree announces the fact that the venereal disease education program is being expanded and improved in an effort to reach more and more people. At the same time steps are being taken to improve the investigating service, through additions to the investigative staff. The purpose of this particular program is to aid local health authorities in following up known cases of venereal disease, so that persons unwittingly exposed can be given treatments. One man also has been added to the venereal disease consultation service maintained by the State Board of Health.

Dr. Ferree also announces that Jackson County has been added to District No. 5 Health Department, and Vincennes to the District No. 1 Department. The Vincennes area was added because of the fact that a new air field has been opened up nearby in Illinois. Headquarters of District No. 5 is at Columbus, and District No. 1 at Princeton.

Dr. John W. Ferree, secretary of the Indiana State Board of Health, asks that this column express his appreciation to the local medical societies and to physicians throughout the state for their co-operation in the board's immunization program.

"I hope this will continue as a permanent thing," Dr. Ferree said. "We would like to get greater immunization against diphtheria and smallpox among children in the pre-school age group."

Annual Convention

Indiana State Medical Association

French Lick

September 29, 30 and October 1, 1942

Deaths



John S. Leffel, M.D., of Connersville, well-known physician who was prominent in civic affairs, died suddenly on April twentieth, at the age of fifty-three. He graduated from the Indiana University School of Medicine in 1917, and had practiced in Connersville for twenty-four years.

Doctor Leffel served as an officer during World War I, was a member of the Fayette County Emergency Medical Relief Committee on Civilian Defense, and was the chairman of the Medical Relief Committee of the Indiana State Medical Association. He was a member of the Fayette-Franklin County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

John L. Morris, M.D., of Princeton, died March twenty-fourth, at the age of seventy-three. Doctor Morris was a graduate of Jefferson Medical College, Philadelphia, in 1896. He was a member of the Gibson County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

Ithimer M. Casebeer, M.D., of Clinton, died May fourth, aged seventy-two years. He was a graduate of Rush Medical College, University of Chicago in 1893. Doctor Casebeer was a lieutenant colonel in the Medical Reserve Corps.

* * *

Walter R. George, M.D., of Indianapolis, died May first, aged seventy-one. Doctor George graduated from the Medical College of Indiana, Indianapolis, in 1895.

* * *

Martin K. Kreider, M.D., of Goshen, one of Elkhart County's pioneer physicians, died at his home on April sixteenth, at the age of ninety-five. Doctor Kreider was a graduate of the Chicago Homeopathic Medical College in 1878. He was an honorary member of the Elkhart County Medical Society, and of the Indiana State Medical Association, as well as a member of the American Medical Association.

* * *

Manson M. Lairy, M.D., of Lafayette, died April thirteenth, at the age of eighty. He graduated from the Medical College of Indiana in 1893. Doctor Lairy was a member of the Tippecanoe County Medical Society, and an honorary member of the Indiana State Medical Association. He was also a member of the American College of Physicians, and a Fellow of the American Medical Association.

* * *

Merrill E. Liston, M.D., of South Bend, died April twenty-fourth, at the age of thirty-three. Doctor Liston was a graduate of the University of Kansas School of Medicine in 1935.

* * *

Henry G. Steinmetz, M.D., formerly of Logansport, died on April twenty-third, at East Lansing, Michigan, aged forty-eight. Dr. Steinmetz was a graduate of the Indiana University School of Medicine in 1928.

In Memoriam

JOHN S. LEFFEL, M.D.

RESOLVED, That the members of the Indiana State Department of Public Welfare Advisory Committee on Medical Aid, cognizant of the civic and professional interests, the sincerity of purpose and tireless effort of Dr. John S. Leffel, express deep regret for his sudden and unexpected death. His competence to speak for the medical profession on the relationship between the profession and government relief agencies earned him the respect of the committee. His contribution to the progress made in the state department in respect to administration of the medical aid relief is noteworthy. His is a personal as well as a professional loss to the committee.

(The above resolution was passed by the Indiana State Board of Public Welfare Advisory Committee on Medical Aid.)

News Notes

Dr. Harry Brandman, Whiting, has been appointed deputy coroner for Lake County.

Dr. Russell Perry Reynolds, of Garrett, has been appointed county physician for DeKalb County.

Dr. Charles M. Gingerick, of Liberty Center, and Miss Marjorie Allen, of Ossian, were united in marriage April twenty-eighth.

Dr. Kenneth O. Neumann, of Lafayette, and Miss Ruth Benjamin, also of Lafayette, were married April thirtieth at the home of the bride.

Dr. James Y. McCullough, a native of New Albany, but recently associate surgeon in the Davis Hospital at Statesville, North Carolina, has opened an office in New Albany.

Dr. William Lee Wissman, of Columbus, and Miss Mary Catherine Wright, of Indianapolis, were married on April fourteenth in the Meridian Heights Presbyterian Church at Indianapolis.

Dr. Merrill S. Davis, of Marion, has been elected president of the Indiana Bone and Joint Club, an organization of Indiana surgeons who specialize in the treatment of bones, joints and fractures.

The Gibson General Hospital, at Princeton, announces the installation of a $10,000 x-ray unit, the gift of Mrs. Amanta Maier, of Griffin, in memory of her father, Herman Siegert, and her husband, Paul Maier.

A hospital addition, estimated at $190,000, will be constructed for use in the defense area at Jeffersonville. David R. Kennicott, regional engineer of the Federal Works Agency at Chicago, announced the approval of the general contract award on the low bid of $113,277.

Dr. Lymon D. Eaton, of Indianapolis, has assumed duties at Princeton as director of the District Health Office, which has jurisdiction over Gibson, Pike, Posey and Warrick counties.

TWELFTH DISTRICT MEETING

The Twelfth Councilor District Meeting will be held at Fort Wayne on June eleventh. General Lewis B. Hershey, director of the Selective Service System, will be the principal speaker. All physicians are invited to attend.

Dr. Ray Borland, and Dr. F. H. Austin, of Bloomington, have been appointed directors of the Public Health Venereal Clinic, replacing Dr. Neal Baxter, who has been called to active duty with the Navy.

The president of the Pulaski County Medical Society reported that for the first time in the history of their society it is functioning 100 per cent. We wish to congratulate them on their attainment and to wish them continued success.

The Fort Wayne Medical Laboratory has installed new and up-to-date x-ray therapy apparatus. Dr. B. W. Rhamy is pathologist and director of the laboratory, and Dr. E. M. Van Buskirk is in charge of the x-ray department.

Dr. H. C. Ruddick, of Evansville, is the newly elected president of the State Board of Medical Registration and Examination. Dr. N. E. Harold, of Indianapolis, was elected vice-president, and Dr. Will C. Moore, of Muncie, secretary.

THE AMERICAN CONGRESS OF PHYSICAL THERAPY

The American Congress of Physical Therapy will hold its twenty-first annual scientific and clinical session September 9, 10, 11 and 12, 1942, inclusive, at the Hotel William Penn, Pittsburgh, Pennsylvania. All sessions and the seminar will be open to the members of the regular medical profession and their qualified aids. For information concerning the seminar and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

EXAMINATIONS
AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The general oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted at Atlantic City, N. J., by the entire Board, from Thursday, June 4, through Tuesday, June 9, 1942, prior to the opening of the annual meeting of the American Medical Association.

As previously announced in the Board booklet, this fiscal year (1941-1942) of the Board marks the close of the two groups of classification of applicants for examination. Thereafter, the Board will have only one classification of candidates, and all will be required to take the Part I and Part II examinations. For further information write to Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

At the thirty-first annual conference of the Indiana Tuberculosis Association, held in Indianapolis April 14 and 15, the following officers were elected: President, Dr. Thomas R. Owens, Muncie; first vice-president, Rev. A. H. Gallmeier, Peru; second vice-president, Dr. James F. Spigler, Terre Haute; secretary, Mrs. George Moser, New Albany; treasurer, Dr. C. J. McIntyre, Indianapolis; and assistant treasurer, Dr. J. H. Stygall, Indianapolis.

INTERNATIONAL COLLEGE OF SURGEONS NATIONAL ASSEMBLY

The United States Assembly of the International College of Surgeons meets in a four-day session in Denver, Colorado, July 15-18. Headquarters and main assembly will be at the Shirley-Savoy Hotel.

This meeting is open to all physicians and surgeons in good standing in their State Medical Society. It has purposely been opened to this large group that this organization might play its part in the National Defense Program.

NOTICE CONCERNING DIGITALIS PREPARATIONS

The Food and Drug Administration reports that examinations of a number of samples of each of the various pharmaceutical forms of digitalis indicate that a substantial reduction in potency will result in changing from USP XI to USP XII standards. The exact reduction is not predictable but our data indicate that the reduction will amount to 40 per cent or more in at least one half the cases.

In a drug in which standardization is as important as with digitalis, a change in potency of this magnitude is of the greatest interest to the physician and patient. It is suggested that during the transition period in which USP XI and USP XII products may both be available, conspicuous notice of the reduction in potency be given on the labels.

ANNUAL MEETING OF AMERICAN COLLEGE OF CHEST PHYSICIANS

The eighth annual meeting of the American College of Chest Physicians will be held at Hotel Dennis, Atlantic City, June sixth inclusive of the eighth. Dr. James H. Stygall, of Indianapolis, is governor of the College for Indiana, and is chairman of the National Council of Tuberculosis Committees. Examinations for Fellowship in the College will be conducted on Friday, June fifth. An extensive scientific program has been planned, and a joint session with the American Broncho-Esophagological Association will be held on the afternoon of June eighth. A Council on Military Affairs Luncheon Meeting will be held on June seventh, at which several prominent speakers will discuss tuberculosis problems with regard to the armed forces.

SCHERING AWARD WINNERS

Winners of the Schering Award for 1941 have just been announced by the Association of Interns and Medical Students. Fred Feldman, Class of 1942, Albany Medical College, and Cesare Lombroso, Class of 1942, Johns Hopkins Medical School, have been awarded first and second prize respectively by the Committee of Judges, a group of outstanding American investigators. Elizabeth Brown, Albany Medical College, and Clarence Denton, Long Island College of Medicine, have been awarded third prize.

The Schering Award, established by the Schering Corporation and conducted by the Association of Interns and Medical Students, offers two tuition scholarships of a year and a half year respectively, to be granted for the best papers dealing with some aspect of endocrinology submitted by undergraduate medical school students in the United States or Canada.

BLOOD AND PLASMA RESERVES

Regulations for the administration of the Blood and Plasma Bank Program of the Medical Division of the United States Office of Civilian Defense have now been prescribed, and funds are available for grants to assist approved hospitals in establishing blood and plasma banks. Only hospitals within three hundred miles of the Atlantic, Pacific or Gulf coasts are eligible for such grants. After July 1, 1942, these geographical restrictions may be modified, so that grants may be made to inland hospitals. Applications should be addressed to the Chief Medical Officer, United States Office of Civilian Defense, Washington, D. C.

Technical manuals on blood and plasma banks, prepared by the Subcommittee on Blood Substitutes of the Division of Medical Sciences, National Research Council, are now available for distribution on request of any hospital to the Chief Medical Officer, Office of Civilian Defense.

The Red Cross has established eighteen donor centers in various parts of the country, which are successful in obtaining an adequate supply of blood donors for military purposes. Blood for the production of dried plasma for civilian defense purposes will also be obtained from these sources.

Hospitals which establish their own blood and plasma banks with the financial assistance of the Office of Civilian Defense are advised to build up their reserves of blood and plasma by expanding blood collection from relatives and friends of patients who are to receive transfusions. A public campaign for volunteer donors which may compete with the work of the Red Cross should be avoided if possible. If public solicitation is necessary, hospitals should appeal to the local chapters of the American Red Cross for assistance in recruiting hospital donors. Blood donor campaigns by agencies other than the Red Cross will tend to confuse the public and may interfere with the blood collection by the Red Cross for the armed forces.

MILITARY NEWS

(THE JOURNAL will undertake to keep in touch with members who have enlisted in the various branches of the armed forces, giving their location, their rank, etc. Members of the Association are requested to send to the Office of THE JOURNAL such information as they may have concerning recent enlistments, transfers and promotions of members in the Service.—Editor's Note.)

Dr. J. M. Pfeifer, of Lawrenceburg, is now in active military duty at an air base in Florida.

Dr. E. L. Libbert, a captain in the Medical Corps, is serving in a sub-station hospital at Charlotte, North Carolina.

Dr. Robert L. Armington, of Anderson, has been commissioned first lieutenant and is serving with the military forces at Fort Sam Houston, Texas.

Dr. Franklin T. Hallam, formerly of Indianapolis, has been promoted to colonel in the Medical Corps, and is stationed at Blackstone, Virginia.

Lieutenant Colonel David H. Sluss, of Indianapolis, has been transferred to Station Hospital 30, Fort Bragg, North Carolina.

Dr. Harry Covell, formerly of Auburn, has been promoted to the rank of major in the 151st Medical Battalion at Camp McQuaide, California.

Dr. James G. Shanklin, of Hammond, has been commissioned a first lieutenant and is stationed in the Air Corps at Kelly Field, San Antonio, Texas.

Dr. Floyd T. Romberger, Jr., of Lafayette, now with the Seventh Corps, Fourth Army Headquarters, San Jose, California, has been promoted to the rank of captain.

Dr. William L. Green, of Indianapolis, has been given the rating of senior lieutenant surgeon in the Navy, and is stationed at Mare Island, San Francisco.

Colonel James W. Duckworth, medical officer with the American forces which escaped from Bataan to Corregidor, is a native of Martinsville and was formerly a member of the staff of the Methodist Hospital in Indianapolis. He headed a medical receiving station in France during World War I.

Dr. John R. Phillips, of Michigan City, a lieutenant commander in the Navy, was reported as having been stationed in northern Ireland about thirty days ago.

Dr. Charles E. Muhleman, of LaPorte, first lieutenant in the Medical Corps, is now on duty at Letterman General Hospital, San Francisco, California.

Dr. J. W. Thom, formerly of Gosport, but a member of the Army Medical Corps for several years, has been advanced to the rank of captain, and is now stationed at Mare Island (California) Navy Yard, with a balloon barrage battalion.

The 151st Medical Detachment, an Indianapolis-staffed unit of the 151st Infantry Regiment at Fort Benning, Georgia, has been cited by headquarters of the Fourth Army Corps for excellence of discipline and organization. Major Albert L. Marshall, of Indianapolis, is chief surgeon of the 151st Regiment and commander of the detachment. Other Indiana physicians on the 151st Infantry medical staff are Captain Charles N. Menley, of Rising Sun, and First Lieutenant John B. Long, of Indianapolis. Besides the usual duties of keeping 3,000 men physically fit, the medical detachment instructs in litter drill (removing injured from field of battle) and first aid, inspects kitchens and latrines to maintain high sanitation, and the inoculation of troops for yellow fever, smallpox, typhoid, and tetanus.

INDIANA UNIVERSITY NEWS NOTES

Forty-two physicians, five dentists, and seventy-two nurses were sworn into military service during induction ceremonies of General Hospital No. 32 at the Indiana University Medical Center on the afternoon of May thirteenth. The forty-seven physicians were commissioned officers in the United States Army. Six or seven other physicians will be commissioned, but their papers are still in process. The unit will have a total of seventy-three officers, including a number to be assigned by the Army, and a commanding officer who also will be appointed. The unit will have a total of seven hundred persons, including one hundred twenty nurses.

At the ceremonies, Dr. C. J. Clark and Dr. Charles F. Thompson, who have been in charge of organizing the unit, were commissioned lieutenant colonels. Drs. Clark and Thompson said that all officers will continue their practice until the unit is called into service. This may be several months, depending on the military situation.

A concert by the Indiana University Band preceded the formal recognition program, which was

opened by Dr. W. D. Gatch, dean of the Indiana University School of Medicine. Speakers at the ceremony were Governor Henry F. Schricker; Mayor Reginald H. Sullivan, of Indianapolis; President Herman B Wells, of Indiana University; and President-Emeritus William Lowe Bryan, of Indiana University. Colonel R. L. Shoemaker, commanding officer of the Indiana University R.O.T.C., conducted the military ceremonies, and Lieutenant Colonel I. F. Peak, commanding officer of the medical school R.O.T.C., administered the oath of loyalty. The invocation at the ceremony was given by Bishop Joseph Ritter of the Indianapolis Catholic diocese, and the benediction by the Rev. William A. Shullenberger, pastor of the Central Christian Church, Indianapolis.

Included in the program was a tribute to J. K. Lilly, whose $25,000 gift in 1917 started the movement for the organization of Base Hospital No. 32 in cooperation with the American Red Cross and City Hospital, and Dr. Carleton B. McCulloch, one of the top-ranking officers and organizers of that unit.

Following are those who received commissions:

Lieutenant Colonels—Dr. C. J. Clark and Dr. Charles F. Thompson, both of Indianapolis.

Majors—Drs. Brandt F. Steele, Paul J. Fouts, Paul G. Iske, Isidore J. Kwitny, Russell Hippensteel, Eugene F. Boggs, James Browning, Fred D. Cheney, Jack E. Pilcher, James F. Balch, Charles F. Ingersoll, D. S. Megenhardt, and Glenn Pell (D.D.S.), all of Indianapolis, and Dr. Charles L. Mahoney, Terre Haute.

Captains—Drs. David Engle, B. D. Rosenak, James E. Engler, Joseph L. West, William H. Norman, Fred C. Reynolds, Thomas W. Johnson, Howard D. Cogswell, Benjamin Felson, Donald E. Wood, J. Neill Garber and Charles Albert Everett (D.D.S.) all of Indianapolis; and Drs. John L. Ferry of Whiting, Carl Culbertson of South Bend, Robert Amos of New Castle, Robert W. Oliphant of Terre Haute, John Haslem of Terre Haute, John S. Hash of Williamsport, and William H. Lane of South Bend.

Lieutenants—Drs. W. B. Rossman, Donald F. Casely, Howard H. Romack, George D. Davis, all of Indianapolis; Robert Calvin Speas and John H. Smith, Bloomington, Stephen Johnson, and Dallas Fickas of Evansville and Drs. Jack Carr Jr., William F. Hanning and Doyle Pierce, all Indianapolis dentists.

At Indiana University's 113th annual commencement held May tenth, one hundred seven students of the medical school received the degree of Doctor of Medicine, fourteen the degree of Graduate Nurse, and nineteen the degree of Doctor of Dental Surgery.

Recipients of the Doctor of Medicine degree were: John Alward, South Bend; Albert Applegate, Frankfort; Arnold Bachmann, Cambridge City; Mrs. Mary Helen Beall Barnes, Rushville; Wallace Bash, Warsaw; Margaret Ann Bassett, Thorntown; J. B. Bennett, Warren; Robert O. Bill, Indianapolis; John H. Bjorklund, Indianapolis; George Bloom, Middlebury; Clyde Botkin, Muncie; Otis Bowen, Crown Point; John Brink, Gary; Welborn Britton, Beech Grove; Franklin Bryan, Fort Wayne; Joseph Buchmeier, Indianapolis; Richard Buckingham, Indianapolis; Merle Bundy, Salem; Harold Burdette, Roachdale; Paul Burns, Poneti; Robert Cannon, Hammond; George Compton, Indianapolis; Mary Alice Craig, Indianapolis; Robert A. Craig, Gary; Martha Louise Crandall, Princeton; Joseph Davis, Marion; Pierre DeLawter, Indianapolis; Forrest Denny, Madison; Pauline Detraz, Vevay; Robert Dilts, Fort Wayne; Thomas Dittmer, Kouts; J. Colin Elliott, Middlebury; Robert Fenneman, Evansville; David Gaulke, Anderson; Raymond Getz, Jr., Fort Wayne; George Godersky, South Bend; Mrs. Lois Shoff Godersky, Flora; Charles Green, Paragon; Myron Green, Indianapolis; Richard Halfast, Indianapolis; Oscar D. Havens, Cicero; Edgar Hawk, New Palestine; Claude Heritier, Columbia City; Oliver Hitch, Princeton; James Humphrey, Hammond; Guy Ingwell, North Judson; Joe Jewett, Carmel; Walter Jones, Indianapolis; Robert Jordan, Indianapolis; Alexander Kahn, Indianapolis; Everett Kalb, Indianapolis; William Karsell, Indianapolis; James Katterjohn, Floyds Knobs; Jerome Korn, Gary; Martin Krajac, Indianapolis; Clem Kuehne, Jr., South Bend; Frederick Kuhn, Plymouth; William Kurtz, Indianapolis; Forrest LaFollette, New Salisbury; Charles Latshaw, Carlisle; Ben Leming, Topeka; John McBane, Fortville; Donald McCartney, Fairmount; Frank McDonald, Linton; John Mader, Indianapolis; Salvo Marks, Hammond; Griffith Marr, Columbus; Charles Martin Jr., Logansport; Brooker Masters, Plymouth; Tom Middleton, Indianapolis; Mary Moss, Kendallville; J. Edward Muentzer, Vincennes; Lullus Muller, Fowler; John Nill, Fort Wayne; Horace Norton, Plainville; Robert Peacock, Dunkirk; Warren Polhemus, Anderson; James Powell, Upland; Richard Pryor, Indianapolis; Emile Ravdin, Evansville; John Rieder, South Bend; Albert Ritz, Evansville; Edmund Roll, Frankfort; James Roth, Boonville; Andrew Salm, Gary; John Schechter, Indianapolis; Theodore F. Schlaegel, Jr., Indianapolis; Faye Sheeley, Chesterton; William Sholty, Lafayette; Helen Mae Sisson, Pendleton; David Smith, Indianapolis; Maurice Snyder, Liberty; Homer Streib, Marion; Clyde Sussman, Hartford City; Robert Switzer, Bloomington; Eber Teter, Carmel; Frank Tinsley, Indianapolis; Harlan Tyner, Indianapolis; Helen Van Vactor, Indianapolis; Victor Vollrath, Indianapolis; John Westfall, Indianapolis; Roger Whitcomb, Knightstown; Francis Whitlock, Fairbanks; Charles Williams, Hartford City; Julius Wohlfeld, Indianapolis; Richard Woolery, Bedford, and Joseph Worley, Indianapolis.

The following received the Doctor of Dental Surgery degree: Fred Baldwin, Indianapolis; Ally Burks, Indianapolis; Aulden Bush, Rossville, Illinois; Jack Feintuch, Brooklyn, New York; Martin Feldman, New London, Connecticut; John Gilchrist, Greensburg; Roscoe Gromer, West Baden Springs; Sheldon Hall, Indianapolis; William Henning, Boonville; Charles Lowery, Balkan, Kentucky; Richard Michener, Kokomo; Paul Pruett, Indianapolis; Darrell Stock, Greenfield; Morris Stoner, New London, Connecticut; Eldred Stout, Silver Lake; George Stragand, Dunkirk; Dennis Welp, Jasper; Leo White, Valparaiso; Robert Wurtz, Indianapolis.

The Graduate Nurse degree was awarded to: Edith Behrens, Anderson; Barbara Bundy, Indianapolis; Mary Duncan, Sharpsville; Judith Harris, Bloomington; Ann Jessup, Carmel; Ann Poorman, Huntington; Doris Reed, Indianapolis; Mary Jane Russell, Portland; Dorothy Scea, Dickey, North Dakota; Edith Smith, Madison; Jean Southern, Flushing, Ohio; Frieda Stancomb, Bedford; Helen Willcutts, Indianapolis; Daisy Williams, Ely, New York.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

REPORT OF COMMITTEE ON VENEREAL DISEASE

The Committee on Venereal Disease of the Indiana State Medical Association met Sunday, April 12, 1942, in the Board Room of the Indiana State Board of Health. This meeting was for the purpose of discussing several matters and problems with Drs. John W. Ferree and George W. Bowman, of the Indiana State Board of Health. The meeting was requested by Dr. Ferree.

Dr. Mark Ziegler, of the United States Public Health Service, was present and discussed the position of the Service regarding the controversy concerning the clause, "The circumstances of this examination are such that I believe it should be made without charge," which formerly appeared over the signature of the physician on the serology card of the Indiana State Board of Health. Dr. Ziegler stated that the position of the Service was that no funds controlled by them could be expended to support laboratory service requiring certification of indigency for such service, and that this clause had been construed to have that meaning. Dr. A. S. Giordano, of South Bend, was present and he and Dr. B. W. Rhamy were asked to request the Indiana Pathologists Association to appoint a representative to consult with Dr. F. R. Nicholas Carter, of South Bend, in an attempt to devise a new clause for the serology card that would meet the approval of the Public Health Service. Dr. Ferree and Dr. Bowman expressed a desire to co-operate in formulating this clause, which Dr. Ferree would then submit to the Public Health Service.

As the part of the medical profession and health officials in the control of venereal disease for the protection of the armed forces and the civilian population, it is urged that especial vigilance be maintained to promote diagnosis, treatment and control of cases, as well as complete reporting and careful follow-up of infectious cases and sources.

Local health authorities are advised to assume and enforce their powers to require that all cases rejected by Selective Service for reason of venereal disease be placed under proper medical supervision.

Provision for the hospitalization of infectious or active cases of venereal disease and prepsychotic central nervous syphilis should be made, utilizing existing available facilities at the discretion of the constituted health authorities. It is deemed unwise to erect or procure hospitals or detention institutions for the exclusive use of venereal cases.

The reporting of cases of venereal disease by the attending physician remains a problem. Methods calculated to correct this serious condition were discussed. Payment in any form for the performance of this function was considered inadvisable. It is believed that the provision of assistance in the control of cases provided by the health authorities and made available to the man in private practice is the preferred method. Provision of this assistance and encouragement of its use should be the first approach.

The distribution of "sulfa" drugs for the treatment of indigent cases was considered. Mr. Harold Darnell, secretary of the Indiana State Pharmaceutical Association, was present for this discussion at the request of the chairman. Owing to the many ramifications of this problem, it is felt that for the present it is best that these drugs be provided and distributed by the local health departments.

The Committee on Venereal Disease commend and have confidence in the State Health agencies in their dealing with State Public Health problems, and recommend that the United States Public Health Service advise them on request, but that the Indiana State Board of Health retain the full determination of matters of policy and execution of same.

Thanks were expressed to Mr. Harold Darnell, and a motion was made to voice our gratitude to the Pharmaceutical Association for its fine spirit of co-operation with the Committee on Venereal Disease. The motion follows:

It is moved that the Committee on Venereal

Disease of the Indiana State Medical Association express their thanks to Mr. Harold Darnell, secretary of the Indiana State Pharmaceutical Association, and to the members of that association in the various localities in the state for their fine co-operation in the campaign to educate the public concerning the seriousness of and the need for control of venereal disease."

This motion was carried by a unanimous vote.

MINOR MILLER, *Chairman*
F. R. NICHOLAS CARTER
E. O. NAY
B. W. RHAMY
W. P. MORTON

LOCAL SOCIETY REPORTS

Boone County Medical Society members held a dinner meeting at the Witham Hospital, Lebanon, on March twenty-sixth. The speaker, Dr. Paul Merrell, of Indianapolis, read a paper on "Head Injuries." Ten members were present.

* * *

Dearborn-Ohio County Medical Society members held a meeting on April twenty-eighth at Lutheran Hall, Aurora. Doctor Robert M. Ferguson, of Rising Sun, read a paper entitled "Trichinosis and Local Cases in This and Adjoining Counties." Eleven members were present.

* * *

Delaware-Blackford County Society members held a meeting at the Hotel Roberts, Muncie, on April twenty-first. Philip Silvers spoke on the work of the Humane Society, and Dr. R. M. McMichael, of Muncie, read a paper on "Breech Deliveries and Deliveries by Version and Extraction." Thirty-four members and two guests were present.

* * *

Elkhart County Medical Society members held a dinner meeting at Hotel Elkhart, Elkhart, May seventh. Dr. L. G. Erickson, of South Bend, presented a "Review of Interesting Gastro-intestinal Lesions from the X-ray Standpoint." Dr. A. S. Giordano, of South Bend, read a paper entitled "Pathological Review of the Foregoing Cases." Sixty-five members were present.

* * *

Gibson County Medical Society members held a meeting at the Emerson Hotel, Princeton, on May eleventh. The guest speaker was Dr. A. H. Diehr, St. Louis, Missouri. His subject was "Fractures of the Ulna, Radius and Humerus." Thirty-one members were in attendance.

* * *

Greene County Medical Society members held a meeting on April sixteenth at the Freeman County Hospital at Linton. No paper was read, but there was a general discussion of interesting cases. Eleven members attended.

Hamilton County Medical Society members held their monthly meeting on April fourteenth at the home of Dr. C. H. Tomlinson, at Cicero. Dr. Louis Segar, of Indianapolis, was the speaker, his subject being "Diseases of Children."

* * *

Indianapolis (Marion County) Medical Society members held a meeting on April fourteenth in the Travertine Room of the Lincoln Hotel. This was a joint meeting with the Indiana Tuberculosis Association. The following papers were read: "The Tuberculosis Problem During the War," by Dr. Herman E. Hilleboe, surgeon in charge of Tuberculosis Control, United States Public Health Service; "Latest Developments in Tuberculosis Research," by Dr. Douglas, commissioner of health, Detroit, Michigan.

A meeting was held on Tuesday evening, April twenty-first, at the Indianapolis Athletic Club, at which the following papers were read: "Recent Trends in Proctologic Treatment," by Dr. Richard H. Appel, of Indianapolis; "Hysterectomy in Pregnancy, Labor and the Puerperium," by Dr. Gerald Gustafson, of Indianapolis; "The Treatment of Burns," by Dr. Harold Trusler and Dr. Horace Banks, of Indianapolis.

A meeting was held on April twenty-second in Hurty Hall, Indiana State Board of Health Building. This was a conference for the better care of the newborn and premature infant.

A meeting was held April twenty-eighth at the Indianapolis Athletic Club. The guest speaker, Dr. Francis E. Senear, of Chicago, read a paper on "Eczemas of the Hand."

A meeting was held May fifth at the Indianapolis Athletic Club, at which there was a round-table discussion of military medicine, participated in by Drs. LaRue D. Carter, chairman; John Ray Newcomb; Major Glen W. Lee; Charles R. Bird; and Mr. Thomas Hendricks.

A joint meeting of the Indianapolis Medical Society and the Medical Staff of the Methodist Hospital was held May twelfth at the Nurses Home of the Methodist Hospital. The program was presented by the Medical Staff.

* * *

LaPorte County Medical Society members held their monthly meeting at the Spaulding Hotel, Michigan City, on March nineteenth. Dr. W. W. Bauer, director of the Bureau of Health Education of the American Medical Association, spoke on "Why Health Education." Twenty-four members of the society and sixteen members of the auxiliary attended.

The April meeting was held at the Rumely Hotel, LaPorte, on the sixteenth. Dr. David A. Boyd, Jr., of Indianapolis, was the speaker, his subject being "The Modern Treatment of Delirium Tremens." Nineteen members were present.

* * *

Muncie Academy of Medicine members met at Hotel Roberts, Muncie, on May twelfth. Dr. Stan-

ley P. Reimann, director of Lankenan Research Institute, Philadelphia, Pennsylvania, was the guest speaker, his subject being "Some Chemical Factors in Growth and Development."

* * *

Parke-Vermillion Medical Society members held a dinner meeting on April fifteenth at the Vermillion County Hospital, at Clinton. Dr. Carl Huber, of Indianapolis, spoke on "The Toxemias of Pregnancy." Fifteen members were present.

* * *

Pike County Medical Society members held a meeting on April third at the home of Dr. J. T. Kime, Petersburg. Plans were made for a well-baby clinic to be held in the near future. It was also planned to invest $300.00 in bonds in the name of the Pike County Medical Society.

* * *

Randolph County Medical Society members held a meeting on April thirteenth at the Randolph County Hospital in Winchester. Dr. James C. Walker, of Dayton, Ohio, spoke on "Fractures of the Neck of the Femur."

* * *

St. Joseph County Medical Society members held a meeting on April fifteenth at the Indiana Club, South Bend. Dr. Walter L. Palmer, of Chicago, was the guest speaker.

* * *

Tippecanoe County Medical Society members held a meeting at Lincoln Lodge, Lafayette, on April fourteenth. Dr. Paul Merrell, Indianapolis, read a paper entitled "Peripheral Vascular Disease." Fifty-six members attended.

* * *

Vanderburgh County Medical Society members held a meeting at the Welborn-Walker Hospital, Evansville, on April fourteenth. Dr. Mell B. Welborn, of Evansville, presented a new method of treatment in the case of a broken hip.

* * *

Wayne-Union County Medical Society members held a dinner meeting at the Richmond-Leland Hotel, Richmond, on April ninth. The guest speaker was Dr. Robert J. Masters, of Indianapolis. Twenty-six members were present, and fourteen student nurses from Reid Memorial Hospital were guests.

ANNUAL MEETING OF THE INDIANA ACADEMY OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY

The annual meeting of the Indiana Academy of Ophthalmology and Oto-Laryngology was held at the Claypool Hotel, Indianapolis, on Wednesday, April 1, 1942. The meeting was called to order and presided over by the President of the Academy, Dr. Noel S. McBride of Terre Haute. The following program was presented:

"Ophthalmology—Past, Present and Future," Dr. Noel S. McBride, Terre Haute.

"Two Unusual Cases of Mastoiditis," Dr. Kenneth L. Craft, Indianapolis.

"Ophthalmoplegic Migraine," Dr. H. Brooks Smith, Bluffton.

"Osteoma of the Nasal Sinuses, Case Report," Dr. Hugh A. Kuhn, Hammond.

"Perimetric Studies In Some of the Toxic Amblyopias," Dr. C. E. Savery, South Bend.

"The Sulfa Drugs Locally in Oto-Laryngology," Dr. S. S. Aronson, Indianapolis.

"Problems In Cataract Surgery," Dr. D. H. Row, Indianapolis.

"Injuries and Deformities of the Nose," Dr. Claire LeRoy Straith, Detroit.

"Acute Mastoiditis With Intra-Cranial Complications," Dr. David Jones, Indianapolis.

Following the annual dinner, Dr. Straith presented, in color films and movies, a very interesting demonstration of plastic operations upon the head and face.

The following officers were elected for the coming year: President, Dr. Kenneth L. Craft, Indianapolis; First Vice-President, Dr. F. S. Cuthbert, Kokomo; Second Vice-President, Dr. C. A. Robison, Frankfort; Secretary-Treasurer, Dr. J. Kent Leasure, Indianapolis.

Members of the Council: Dr. Noel S. McBride, Terre Haute; Dr. E. E. Holland, Richmond.

WOMAN'S AUXILIARY

President—Mrs. Ernest O. Nay, Terre Haute.
President-Elect—Mrs. Arnold Duemling, Fort Wayne.
Corresponding Secretary—Mrs. Don M. Mattox, Terre Haute.
Treasurer—Mrs. T. R. Hayes, Muncie.

In the Spring issue of the *Bulletin of the Woman's Auxiliary to the American Medical Association* there appeared a very enlightening and timely article, by Dr. James C. Sargent, entitled "The Quick and the Dead." We present it herewith in part, with the hope that every one of us will do our part at home to remedy this situation.

"People here in America read with horror the appalling list of dead piled high on the fields of battle, yet the final total of all American soldiers killed throughout all of World War I did not even equal the number of healthy useful citizens — 100,000 of them — who died needlessly through accident here in America last year alone.

"When we think of public health work, we think largely in terms of contagious and communicable disease. We have written stringent laws, organized large health departments, and spent many millions of dollars to keep these human scourges under reasonable control. Yet, add them all together, treacherous measles, scarlet fever and whooping cough; frightful infantile paralysis, lockjaw and meningitis; deadly typhoid, smallpox and diphtheria, and then for full measure put in the

greatest of all killers of youth — tuberculosis; add all of these together and they hardly equal the automobile in the numbers that they kill each year in America. Kill, did I say? But that is the least part of the frightful story. For every person killed by the automobile, there are ten others painfully injured — many horribly and hopelessly maimed for life.

"There is a challenge to the doctors and to the wives of doctors of America.

"Fifteen per cent of all deaths to car occupants occur when one car rides over the center line, causing collision. Nearly the same percentage of pedestrian deaths occurs from hiking on the open highway. These are formidable figures, yet they could be eliminated entirely from our statistics by a program of highway construction designed to forbid them.

"There are a number of other examples, but these will serve to indicate the facility and the certainty with which motor accidents could be greatly reduced if only we were ready to meet the issue face to face. Not once down through the long years of our fight for life and health has there ever occurred such an opportunity as this. How long drawn out the fight against smallpox; at what cost in men and money the control of malaria; how disheartening and difficult the battle against tuberculosis. Measured by these, this problem of bringing highway deaths and injuries under reasonable control would be child's play if only people might be shocked into a determined effort to put a stop to this slaughter.

"People everywhere seem to have developed an amazing interest in public health work. Indeed, public interest in disease prevention seems almost to have reached the proportions of a national fetish. Certainly, unless this great lay interest in the prevention of disease and death is purely hypocrisy, it should be possible for some inspired organization to enlist large and militant support in a nation-wide campaign for far greater safety on the open road.

"To that worthy cause this great Auxiliary might well commit itself."

We hope to see you all at the convention at Atlantic City! Remember the date, June 8-12, inclusive.

COUNTY NEWS NOTES

The Woman's Auxiliary to the LaPorte County Medical Society met on April 16, 1942, at the Hotel Rumely, LaPorte, for a dinner, business meeting and program.

"Pioneer Doctors in LaPorte" was the topic of the evening. Mrs. R. V. Jones and Mrs. George W. Kimball, both of LaPorte, were the speakers. They said that records showed the earliest doctor to come to LaPorte was in 1833, when Thomas Vaughn cared for the people living in three cabins there.

The most outstanding doctor during the period between 1833 and 1837 was Dr. Daniel Meaker

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

In addition to our Professional Liability Policy for private practice we issue a special

MILITARY POLICY

to the profession in the Armed Forces at a

REDUCED PREMIUM

THE MEDICAL PROTECTIVE COMPANY

OF

FORT WAYNE, INDIANA

COOK COUNTY
GRADUATE SCHOOL OF MEDICINE

(In affiliation with COOK COUNTY HOSPITAL)

Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique with practice on living tissue, every two weeks throughout the year. General Courses, One, Two, Three and Six Months; Clinical Courses; Special Courses.

MEDICINE—Two Weeks Intensive Course will be offered starting October 5th. Two Weeks Course in Gastro-Enterology will be offered starting October 19th. Two Weeks Intensive Course in Electrocardiography and Heart Disease starting August 3rd.

FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting June 29th and September 21st. Informal course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting October 5th. One Month Personal Course starting August 3rd. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting September 21st. Three Weeks course starting August 10th. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14th. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Course will be offered starting September 28th. Five Weeks Course in Refraction Methods starting October 19th. Informal Course every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore St., Chicago, Ill.

who came to LaPorte in 1835 and founded the LaPorte University School in 1842, later known as the Indiana Medical College.

The Delaware-Blackford County Medical Auxiliary met on May 5, 1942, in Muncie, Indiana. Officers for the coming year were elected. They are:

President ..... Mrs. J. C. Silvers
Vice-President ..... Mrs. O. W. Owens
Secretary ..... Mrs. R. M. Butterfield
Treasurer ..... Mrs. F. E. Kirshman

Members of the Auxiliary brought gifts of sweets, games and books for soldiers whose mothers are members of the organization.

The Woman's Auxiliary to the Marion County Medical Society had a May Day breakfast and bridge at the Marott Hotel Friday noon. Officers were elected, and the revised constitution was read.

Books

RECEIVED

MANAGEMENT OF THE SICK INFANT AND CHILD. Sixth Revised Edition. By Langley Porter, B.S., M.D., Dean Emeritus, University of California Medical School and Professor of Medicine; and William E. Carter, M.D., Director of University of California Hospital, Out-Patient Department. 977 pages with 96 illustrations. Cloth. Price $11.50. The C. V. Mosby Company, St. Louis, 1942.

THE EYE MANIFESTATIONS OF INTERNAL DISEASES. By I. S. Tassman, M.D., Associate Professor of Ophthalmology, Graduate School of Medicine, University of Pennsylvania, Philadelphia, and Attending Surgeon, Wills Hospital, Philadelphia, Pennsylvania. 542 pages with 201 illustrations. Cloth. Price $9.50. The C. V. Mosby Company, St. Louis, 1942.

REVIEWED

THE TOXEMIAS OF PREGNANCY. By William Dieckmann, M.D., The University of Chicago. 521 pages with 53 illustrations. Cloth. Price $7.50. The C. V. Mosby Company, St. Louis, 1941.

As Dr. Dieckmann states, advances in the knowledge of physiology in pregnant and non-pregnant women have been so great during the past few years, it is impossible for one person to comprehend all the knowledge concerning obstetrics and gynecology.

This book is written by a man who has been a great contributor to our knowledge in the late toxemias, and has a twofold purpose: first, to acquaint the obstetrician with some of the recent contributions on physiology pertaining to obstetrics; secondly, to acquaint the investigator untrained in obstetrics with some of the physiology and pathology of obstetrics.

The recent classification of the toxemias suggested by the American Committee on Maternal Welfare is given, but vomiting of pregnancy is not discussed. Chapters on the incidence and pathology of eclampsia are followed by the very important chapter on physicochemical determinations, a phase in which the author has been particularly interested.

The cold pressor and pituitrin tests are described and evaluated in the excellent resumé on blood pressure.

To this reviewer the most important chapters are those giving the new work on renal physiology and hypertension. Also changes in the ocular system are described, as well as the relation of the endocrine glands, including the placenta, and their hormones.

Sound advice is given on the prevention and treatment of the toxemias, as well as their maternal and fetal sequalae. Case reports, graphs and charts clarify the text.

The book is deserving of the highest praise and is recommended to the entire profession. The correlation of so vast an amount of research should be of inestimable value to the busy clinician.

G.W.G.

THE ART AND SCIENCE OF NUTRITION. A Textbook on the Theory and Application of Nutrition, by Estelle E. Hawley, Ph.D., and Grace Carden, B.S., of the University of Rochester School of Medicine and Dentistry, Rochester, New York. 619 pages with 140 illustrations, including 12 in color. Cloth. Price $3.50. The C. V. Mosby Company, St. Louis, 1941.

The Art and Science of Nutrition is a well-written text. The subject matter is in a concentrated form, yet sufficiently covers essential material in foods and nutrition.

Since the book does not go into great detail, additional reference would be necessary where detail was desired. Of exceptional value are the illustrations, which lend color and interest to the material presented. This book makes a good text for student-nurses.

DOROTHY MENKE,
Instructor Nutrition,
Methodist School of Nursing

INDIANA STATE BOARD OF HEALTH
BUREAU OF COMMUNICABLE DISEASES
Monthly Report, March, 1942

Diseases	*March 1942*	*Feb. 1942*	*Jan. 1942*	*March 1941*	*March 1940*
Primary Tuberculosis	8	5	16	0	0
Active Tuberculosis	78	66	147	104	188
Arrested Tuberculosis	6	11	8	0	0
Chickenpox	503	439	377	794	404
Measles	401	265	214	3,791	64
Scarlet Fever	578	571	516	898	1,179
Smallpox	2	1	14	8	15
Typhoid Fever	5	6	8	7	4
Whooping Cough	153	182	222	123	205
Diphtheria	34	29	50	89	41
Influenza	160	136	210	259	10,318
Pneumonia	116	79	104	122	88
Mumps	141	68	124	272	1,688
Poliomyelitis	3	2	6	0	1
Cerebro-Spinal Meningitis	2	3	3	9	7
Rubella	61	9	6	158	0
Vincent's Angina	3	0	0	0	0
Undulant Fever	2	2	2	2	5
Trichinosis	2	0	0	0	0
Bacillary Dysentery	2	0	0	0	1

Always DEPENDABLE PRODUCTS

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals . . . Tablets, Lozenges, Ampoules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled. Write for general price list.

Chemists to the Medical Profession IN-6-42

THE ZEMMER COMPANY, Oakland Station, PITTSBURGH, PA.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 JULY, 1942 NUMBER 7

MEDICINE IN ANCIENT ROME

EDGAR F. KISER, M.D.
INDIANAPOLIS

Primitive medicine, in all ages and among all peoples, has been a conglomerate of witchcraft, sorcery, mysticism and magic, closely linked with highly specialized rites intended to fend the tribe or the individual against disease or to effect the cure of an existing ailment.

Historical accounts are rather vague concerning the origin of the primitive Romans, but it is generally accepted that the native Ligurians were superseded by an admixture of Umbrians, Etruscans and Sabines, together with fragments derived from other adjacent peoples, constituting a stratified rather than a homogenous group. To this assemblage each of the constituents contributed its share of folk-ways and beliefs, resulting in a multiplicity of divinities, each presiding over some particular activity. The same system was extended to the care of the sick and wounded. There was not a single god of medicine but a multitude of minor deities, usually feminine, each of which controlled the destiny of an individual organ or of a single function. The patient with fever laid his votive offering on the shrine of *Febris;* the victim of common itch sought surcease from pain and irritation at the altar of *Scabies*, and not less than a dozen goddesses presided over the birth of a child and supervised the resultant puerperium. Pliny says that for six hundred years the Romans were without physicians.

While in every other activity the Greeks early insinuated themselves into the lives of the Romans, they made little or no inroads on medicine. The Romans resented their intrusion. Every Latin scholar is familiar with Cato's tirade against Greek physicians in which he called them "corruptors of the race" and would have had them banished from the city. Pliny spared their feelings not a whit when he said, "Whosoever professeth himself a physician, is straightwaies beleeved, say what he will: and yet to speake a truth, there are no lies dearer sold or more dangerous than those which proceed out of a Physician's mouth. Howbeit, we never once regard or look to that, so blind we are in our deepe persuasion of them, and feed ourselves each one in a sweet hope and plausible conceit of our health by them. Moreover, this mischief there is besides, That there is no law or statute to punish the ignorance of blind Physicians, though a man lost his life by them: neither was there ever any man knowne, who had revenge of recompence for the evill intreating or misusage under their hands. They learne their skill by endangering our lives: and to make proofe and experiments of their medicines, they care not to kill us."

Finally, despite the harangues of Pliny and others of his ilk, the Romans felt the need of more practical and more efficient medical attention than that rendered by their special gods. The *pater familias* of nearly every household developed a materia medica of his own and treated the members of his family and his slaves in a manner which combined traditional theurgy with certain herbals in whose curative value he had faith. Cato, the Censor, for example, believed that cabbage was a specific for virtually every known ailment. The belief apparently became well established, for within recent months a squib appeared in a popular magazine of wide circulation which read, "A head of cabbage a day keeps the doctor away." But cabbage and cabala were not enough. The need for resident physicians finally became urgent and the solution of the problem was the education of slaves in medical lore. In as much as the healing art implies service and often service rendered for remuneration, it would have been beneath the dignity of a Roman citizen to become a physician.

In the beginning the slave-physicians rendered service only in the immediate household of the master, but later many a canny slave owner saw potential profit in the medical accomplishment of his chattel and permitted service to be rendered to

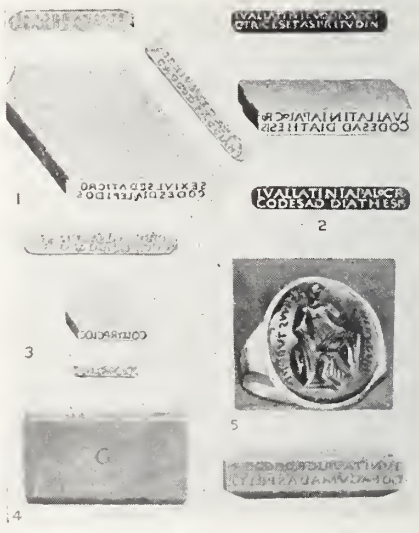
others for pay, the fee of course going to the master. Under compulsion of their owners, slave-physicians not infrequently prostituted their medical knowledge and became professional poisoners or outright murderers. For a few solidi one might be employed to liquidate an unwanted spouse or perhaps a political rival. However, many of these slaves became quite proficient in the healing art.

It is important that we pause for a moment to define the word "slave" as it applied to captives in Rome. Allbutt best explains their status: "We are not to suppose the slave of those times to have been what the haughty Roman took him for; nor to judge him on our prepossessions derived from negro slavery, and thus to regard Roman medicine as a practice only of serfs, or of venal freedmen. The slave trade, amid the raiding and seafaring races, was enormous; but the Greek, and not the Athenian Greek only, must, even as a slave in Rome, have been upheld by a consciousness of high blood and great traditions. In ancient times the dukes of all Greek lands treated their slaves with courtesy, and even with intimacy. Perhaps in Sparta only were slaves held in subjugation and contempt. The Roman medical slave was usually a Greek; and his price, fixed by law at not less than sixty minae, was a high one. Slavery was a convention enforced by the hardness of the times; the captive of whatever nation was not usually of an inferior race, but in brains as well as in dexterity often superior to his owner. His bondage was an accident." It is probable that the better class of practitioners derived from the type of slave that Allbutt so graphically pictures. Many of them became freedmen—*medici liberti*—and achieved both professional and financial success. Not a few were employed in the public service and were highly esteemed.

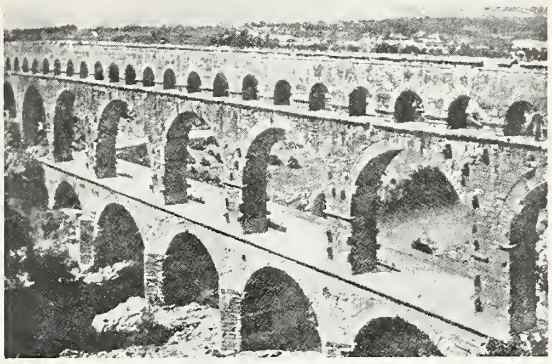
As time went on, the terrific prejudice against the intrusion of Greek physicians seems somewhat to have abated, and eventually they were accepted rather than merely tolerated. In the works of contemporary historians we find the name of Archagathus mentioned as the first Greek physician to practice in Rome. This was about 219 B.C. Hailed as Archagathus Vulnerarius, his brutality in the treatment of patients soon changed the appellation from Vulnerarius to Carnifex. His popularity, of course, waned and for a century we hear nothing more of Greek physicians in Rome.

It is unlikely that during that century many Greek physicians of high rank left their native land where they were honored, even revered, to live in a country where they were unwanted and despised. But there is abundant evidence that Rome and its far-flung possessions were overrun by a veritable potpourri of peripatetic practitioners of Greek origin, many of bad character and low order of intelligence, with scant medical training, who proclaimed themselves medical specialists. Specialization was perhaps "the easiest method of setting up in practice by obtaining in a short time surface knowledge of a portion of a subject." Martial, in an epigram, says, "Cascillius removes or stops bad teeth, Hyginus burns away eyelashes which irritate the eyes, Fannius removes enlarged uvulae without cutting, Eros eradicates brand marks from the skins of slaves."

Of this host of specialists we know more of the oculists—the *Oculari*—than of the rest because we have more concrete evidence of their activities and their methods of practice. It is easy to understand the popularity of oculists in that day. There were no lenses to correct amblyopia, no trephine to relieve glaucoma, no operation to straighten crossed eyes or remove a cataract. Consequently, every disturbance of vision, every irritation or inflammation of the eye or its appendages, occasioned a visit to the eye doctor. The treatment most commonly employed by the oculists, and the vast majority were charlatans, was a medicament containing an astringent such as copper or zinc sulphate prepared in solid form, dissolved in water by the patient before its application. It is because of this form of treatment that we have such intimate knowledge of the oculari, for they have left behind them numerous examples of the tools of their trade. These consisted of stamps or seals which carried the name of the physician, ofttimes a complimentary statement concerning the efficacy of his treatment, the name of the preparation, and occasionally its composition. Such seals have been found in almost every part of Europe which at one time belonged to Rome. Sir James Young Simpson, famed Scottish obstetrician and by avocation an archaeologist, left us a splendid description of these medicine stamps. He says, "They all agree in their general characters. They usually consist of small quadrilateral or oblong pieces, of a greenish schist and steatite, engraved on one or more of their edges or borders. The inscriptions are in small capital Roman letters, cut retrograde and intagliate (like the letters on modern seals and stamps), and consequently reading on the stone



Early Roman Medicine Stamps and Seals



Roman Aqueduct

itself from right to left, but making an impression, when stamped upon wax or any other similar plastic material, which reads from left to right. The inscriptions themselves generally first contain (and that repeated on each side) the name of the medical practitioner to whom the stamp pertained; then the name of some special medicine, or medical formula; and, lastly, the disease or diseases for which that medicine was prescribed. In a few instances, the modes and frequency of using the medicine are added. In some instances, the designation of the medicine, and of the disease for which it is intended, are alone given. Perhaps still more frequently, when the number of items is limited, the name of the medical practitioner only appears, along with the name of some special medicinal preparation or remedy prepared or sold by him. And sometimes the stamps present merely the appellation of the medicine alone, without either the name of the practitioner who vended it, or the name of the disease against which it was supposed to be efficacious." These stamps and the surgical instruments found in the ruins of Pompeii are, except for the Egyptian papyri, probably the most important souvenirs of the medical practice among the ancients extant today.

Comparable in archaeological interest are the water supply and sewage system of Rome. Guarding their secret as jealously as does the Sphinx, these aqueducts and sewers stand today as monuments to the intelligence and genius of their ancient builders. They rival the famed Hanging Gardens of Nineveh and the Colossus of Rhodes in architectural design, mechanical construction and engineering efficiency. Were they conceived and designed by physicians as a means of protecting the public health? Were they sanitary devices in the sense that we use this term? The presumptive evidence is that they were not.

The Cloaca Maxima was begun during the reign of Tarquinius Priscius—616 to 578 B.C.—at a time when Roman medicine, as such, was nonexistent. It was designed with a twofold purpose—to carry sewage to the Tiber and to drain the low marshy land of the city and its environs. True, latrines were built over flowing water in a fashion far in advance of the sanitary appliances found at the present time in many a "comfort station." But it seems reasonable to believe that this precaution was dictated by a desire to keep the city clean rather than by the thought that in so doing public health and welfare would be promoted.

The fourteen massive aqueducts, many of which remain in a fair state of preservation, were almost certainly intended to supply an adequate amount of water for the public baths which, history records, were the very antithesis of aids to public health and morals. Able historians practically disregard the building of the aqueducts and cloacae as component parts of a health program. Albutt, ablest of them all, mentions them only in passing and makes no attempt to establish their medical status. Sudhoff says that such structures often produced hygienic results without medical intention and were almost certainly of nonmedical origin. However, their mere presence is a challenge to the medical historian.

With the destruction of Corinth in 146 B.C. there began an emigration of the more competent physicians from the Greek peninsula to Rome. The first recorded name of importance is that of Asclepiades of Bithynia who established himself in the city in 92 B.C. A proper evaluation of the scholastic attainments of Asclepiades is difficult. He has been the subject of both adulation and vilification and his real worth must ever remain somewhat in doubt. An iconoclast, he questioned the principles of Hippocrates, especially the keystone of the Hippocratic doctrine *vis medicatrix naturae*, and denied emphatically that nature is the healer of disease. He believed in active treatment, but his prescriptions were not bitter potions and nasty pills but wine and elaborate meals and massage and highly specialized baths. It is said that even in treating baldness he prescribed a special diet. In a word, he knew and practiced the art of medicine, as well as the science, and has somewhat maliciously been called "The Father of Fashionable Physicians." However, there is abundant evidence that Asclepiades was a learned man. It was he who first distinguished between acute and chronic illness, advocated the humane treatment of the insane, instituted occupational therapy and memory exercises, and used sedatives to produce rest and sleep. He was the first to men-



Ruins of Another Aqueduct

tion tracheotomy. His greatest affront was perhaps his unwillingness to accept without question all of the teachings of the Father of Medicine, and medical historians from Celsus to Greenhill prefer to paint him as a charlatan, some even going so far as to accuse him of having chosen the name Asclepiades because of its close resemblance to Aesculapius. Of the modern English writers only Sir Clifford Allbutt chooses to defend him.

Of Asclepiades' contributions to the literature of medicine, the most important was his classical description of malaria, and since his day malaria in Rome has engaged the attention of many historians. W. H. S. Jones, after a scientific and very scholarly research, believes that malaria established itself in Latium about 400 B.C. and interprets Livy's description of a pestilence which appeared during the Hannibalic War in 208 B.C. "as almost certainly malarial." Two contemporary writers hinted at the most important factor in the etiology of malaria. Varro warned against the purchase of swamplands, for, he said, "Tiny, even invisible animals are bred in marshes which enter by the mouth and nostrils," and Columella went a step further with his comment, "A marsh always throws obnoxious and poisonous steams during the heats, and breeds animals armed with mischevous stings, which fly upon us in exceeding thick swarms . . . whereby, hidden diseases are often communicated, the courses of which even the physicians themselves cannot thoroughly understand." He was, indeed, quite right. More than two thousand years elapsed before Sir Ronald Ross demonstrated the relation of the mosquito to the transmission of malaria. The disease was so widespread and of such a serious character that Allbutt concludes, "If malaria were not the chief cause of the slow degradation of the Empire itself, no doubt it aided the course of events; for instance by the high death-rate of children, by shifting from large infected areas of the richer and more energetic population, and by decline of health, spirits and morale among those that remained. The indolence and indisposition caused by malaria, and the low survival-rate of children, would increase the unhappy seduction of the later Romans to rely upon colonial and even foreign troops for their armies."

The principles enunciated by Asclepiades were expanded by Themison into that school of medicine known as "the Methodists," in contradistinction to the free lance group who called themselves "Eclectics." The name Themison may not have graved itself deeply upon the archives of medicine, but is of interest to the classicist because it appears in one of Juvenal's acid epigrams as a nasty slap at the doctor. It is part of Juvenal's ugly picture of old age: "Beside all this, the little blood in the old man's frame is never warm except with fever. All kinds of diseases dance around him in a troop. If you were to ask their names, I could sooner tell you how many lovers Hippia had; how many patients Themison has killed off in a single autumn; how many partners Basilus has cheated."

Following closely on the heels of Themison came Thessalus of Tralles, notorious rather than famous disciple of the Methodist School. He was described by Pliny as "a man who swept away all of the precepts of his predecessors, and disclaimed with a sort of frensy against physicians of every age, but with what discretion and in what spirit we may abundantly conclude from a single trait presented by his character: upon his tomb on the Appian Way he had his name inscribed as the Conqueror of Physicians." That Thessalus was a rogue there is no doubt. Had he lived today his name would have flashed from his office window in neon lights. But he was a master of therapeutics and above all a great teacher. What is really important is that he taught medicine at the bedside; inaugurated clinical teaching; took his students into the sick room. But he also, by this very practice, invited a jibe from one of the master satirists. One of Martial's most familiar epigrams reads:

"Faint was I only, Symmachus, till thou,
Backed by an hundred students, throng'dst my bed;
An hundred icy fingers chilled my brow;
I had no fever; now I'm nearly dead!"

We know little of the surgery of Rome except by inference. A people whose pastime was war and whose entertainment the mortal combat of gladiators must have had men capable of attending to resultant wounds, even though they might not have been well equipped to do elective surgery. Depicted on the Column of Trajan is a splendid example of front-line dressing station, showing soldiers whose wounds have been bandaged in a quite modern fashion; and reposing in the museum of the Vatican are a number of surgical instruments which compare very favorably with the armamentarium of a surgeon of our time. While the written evidence is scant, preserved merely by fragments in the works of contemporary writers, it is sufficient to warrant the belief that among the Roman surgeons were many able men. Archigenes is credited with having operated on the breast for cancer and having used the ligature, a procedure lost in the maelstrom of later surgery and not resurrected until the time of Ambroise Pare. Heliodorus probed injuries of the skull and operated for hernia, protecting the operated part by cloth bandages. Antyllus operated successfully for cataract, performed tracheotomy and treated aneurysm in a manner that perpetuates his name in our own surgical text books. In the few preserved bits of his written work he describes in detail the art of wet and dry cupping and gives his patients specific directions for post-operative care. Soranus of Ephesus was the first gynecologist and wrote a manual for the guidance of midwives. He combined pediatrics with obstetrics and gynecology and wrote a treatise on the care of the babe, which showed an unusual conception of disease as it is manifested in infants.

During the reign of Tiberius there appeared from the pen of Aurelius Cornelius Celsus the first

systematic treatise on medicine. It bore the name *De Medicina*. Its author was one of several great encyclopedists of the period, but his personal history is rather obscure. One of his biographers says that "he may have been born at Narbonne about 25 B.C." and "presumes" that he was a layman. There is no evidence to prove that he ever practiced medicine. Many have attempted to establish his real status, and he has been variously evaluated, depending upon the predilection or the prejudice of the writer. There have been numerous charges of plagiarism. Very recently Bruno Meinecke, of the University of Michigan, who is a most dependable medical historian as well as a classical scholar, concludes that "Celsus was a Roman of high attainments and accomplishments, a scholar and expert in the arts, who was especially famous for his mastery in scientific studies, notably agriculture and medicine; that his work on medicine is indelibly ingrained and infused with his mastery as a true Roman, that it was of necessity based upon Greek sources, which he usually cites, but that he wrote the *De Medicina* with independent judgment and that thereby he originated a new medical nomenclature for the Latin language." His Latin was so perfect that he has been dubbed "Cicero medicorum."

De Medicina consists of eight books, the first four of which deal with diseases which respond to diet and regimen. (Weir Mitchell's rest cure and our treatment of incipient pulmonary tuberculosis are not new.) The last four works deal with conditions which require drugs or surgery.

Celsus was the first to use the word "insanity" and the first to speak of "heart disease" as we use the term. Most frequently quoted is his classic description of inflammation *rubor et tumor, cum calore et dolore*. He described a "distemper seated in the large intestine principally affecting that part where I mentioned the caecum to be, accompanied by violent inflammation and vehement pains, particularly in the right side." In 1886 Reginald Heber Fitz described a similar condition and announced it to the medical world as a new clinical syndrome—appendicitis.

Celsus wrote learnedly of malaria and of gout and was the first important medical historian. He placed Hippocrates, Herophilus and Erasistratus in their proper niches in their relation to medicine in Greece. His *De Medicina* was published in 1478, one of the first medical books issued from any press, and has passed through more separate editions than almost any other scientific work. More than a hundred editions are extant.

To one Dioscorides, a Greek surgeon who was with the army of Nero from 54 to 68 A.D., we owe the beginnings of materia medica. He took advantage of the opportunity presented while traveling with the Roman Army to study plants and described about six hundred which had medicinal properties. German authorities in the field of drugs have estimated that of these at least one hundred and fifty were known to Hippocrates and not less than ninety are still in common use. His description of plants and their medical applications were recorded verbatim by authors on materia medica for sixteen hundred years. The wine or mandragora, which he prescribed for pain and insomnia and as a hynotic prior to surgical operations, was thus employed until very near the time of the discovery of the anesthetic effects of nitrous oxide, ether and chloroform.

Arataeus, the Cappadocian, who lived in either the second or third century of the present era, is remembered as an astute clinician. He wrote in Ionic Greek, which was so perfect that he has been characterized by scholars as a literary stylist. He closely approaches Hippocrates in his classic descriptions of disease. He wrote on pneumonia with complicating pleurisy and empyema, on tetanus, diphtheria and epilepsy, and differentiated clearly between cerebral and spinal paralysis. Garrison terms him "easily the most attractive medical author of his time." His works have been made available to English scholars through a magnificent translation by Francis Adams (London, 1858).

Every time that a modern apothecary dispenses a vial of paregoric or a few ounces of syrup of sarsaparilla, he pays silent tribute to one of the greatest names in the history of medicine. Such preparations are called galenicals. The term is derived from Galen, who, though a son of Hellas, was medically the "greatest Roman of them all." It was he, of all the Greek physicians practicing in Rome, who made the greatest and most lasting contributions to medicine.

Galen was born in Pergamum in the year 130 of the present era, the son of Nikon, an architect, and a mother whose only claim to fame was a temper so vicious that she rivaled Xantippe. Inspired by a dream, Nikon encouraged his son, when he was but seventeen years of age, to begin the study of medicine. Of a keen intellectual and philosophical mind, Galen readily acceded to his father's wish and began the study of anatomy in his native city but soon became a peripatetic and, as Garrison puts it, "his entire life was a 'Wanderjahr'." He made long journeys into Asia Minor and Palestine to study pharmacology and later resumed the study of anatomy in Alexandria. Here he had the good fortune to have the use of a human skeleton in his study of osteology, and in later years was wont to send his students from Rome to Alexandria that they might enjoy the same privilege. It seems strange that such a people as the Romans, who valued the life of the individual so lightly, persistently forbade the practice of human dissection.

In 162 Galen went to Rome where in a remarkably short time he acquired a large and lucrative practice. He was, as has been said, the ablest and best educated of the Greeks who essayed to practice medicine in the city and, what is more, he had the courage of his convictions. Modesty was not one of his virtues; he never hid his light under a bushel. "I have done as much to medicine,"

wrote he, "as Trajan did to the Roman Empire in making bridges and roads throughout Italy. It is I alone that have pointed out the true method of treating diseases: it must be confessed that Hippocrates had already chalked out the same road, but as the first discoverer, he has not gone so far as we could wish; his writings are defective in order, in the necessary distinctions; his knowledge in some subjects is not sufficiently extensive; he is often obscure after the manner of the ancients, in order to be concise; he opened the road, but I have rendered it passable." Galen's clinical reports were equally bombastic and self-laudatory. He prated only of his successes and forgot to mention his failures. Not a few papers that are now read before medical societies are, in that particular, reminiscent of this illustrious gentleman. Despite his unfortunate personal attributes, there is no gainsaying that as a research worker and scholar Galen far outshone all of his contemporaries. His anatomical research was of necessity made on pigs and apes, but in spite of the material with which he had to work he did a splendid job. His neurology was especially noteworthy. He distinguished the coverings of the brain, described the corpus callosum and the third and fourth ventricles, as well as the hypophysis. He was the first experimental neurologist and has been acclaimed "the first and foremost contributor to experimental physiology before Harvey." He knew seven of the twelve pairs of cranial nerves and described sympathetic ganglia as the "reinforcers of the nerves." He severed the recurrent laryngeal nerve and demonstrated the resulting aphonia, and he produced hemiplegia by sectioning portions of the spinal cord.

Galen wrote voluminously. His works include nine books on anatomy, seventeen on physiology, six on pathology, three on the temperaments, fourteen on therapeutics, thirty on pharmacy, and sixteen essays on the pulse. In his book on practice he mentioned aneurysm, differentiated pneumonia from pleurisy, and recognized the contagiousness of pulmonary tuberculosis. He advocated rest in a dry climate and a milk diet as the cure for the latter.

Little wonder that Galen became intrenched in the hearts and the minds of successive generations from the time of his death—200 A.D.—until the beginning of the Renaissance. To question Galen was heresy. Had the physiologists of that period dared to reason, the discovery of the circulation would not have been delayed until the seventeenth century. But there is no better example of the harm that can come from the perpetuation of error through blind unreasoning faith (against which Roger Bacon so vehemently preached) than was the strict adherence to some of the erroneous teachings of Galen. He taught that the blood passed from one ventricle of the heart to the other through invisible pores in the septum. As late as 1543, when Vesalius, greatest of anatomists, published his *opus magnum*, he declared that while he could not demonstrate the presence of these pores, he had no doubt that they were present in the septum in Galen's day but that in the intervening centuries, the structure of the heart had changed. Except Hippocrates, no other man in all the history of medicine has so influenced and dominated the practice as has Galen.

During the early centuries of "Rome in Byzantium," there were a few physicians worthy of mention, but they were for the most part compilers and encyclopedists rather than practitioners or research workers. Oribasius perpetuated the names and accomplishments of many of the Roman surgeons. Galen, "he expounded with loving care." Aetius of Amida also wrote extensively on surgery and on pharmacy. Alexander of Tralles was a disciple of Galen but wrote with some originality on medicine and surgery. Paul of Aegina, the most renowned of this group, wrote a huge epitome of medicine in seven volumes which has been translated into English by Francis Adams. However, little of his work was original and he has described himself merely as an humble scribe.

A Talmudic legend relates that the learned Rabbi Akiba was accosted by an infidel who tauntingly bade him tell all of the precepts of his religion while he stood upon one foot. The patriarch, with a smile, replied, "Love thy neighbor as thyself. All the rest is commentary." If one were required to tell the entire story of medicine in Rome in the fewest possible words, he might justifiably recite only the accomplishments of Celsus and Galen. All the rest is commentary.



Own a share in America.
If your flag falls, you lose your freedom.
You can preserve that freedom by buying
United States Defense Bonds and Stamps.

ALLERGY IN GENERAL PRACTICE

JONATHAN FORMAN, M.D.*
COLUMBUS, OHIO

There has been a good deal of confusion in recent years brought about by the inaccurate use of the word "allergy." Consequently, you hear the statement made frequently that "very few cases of hives are allergic," or that "many cases of asthma are not allergic," et cetera. What the speaker really means is that he cannot establish the fact that they are atopic. It is to be emphasized here that clinical allergy may be of several types: (1) atopy, or the familial type; (2) contact type; (3) bacterial type; (4) serum type; and (5) physical type. During the last two years leaders in this specialty have been pointing out that under this broader classification almost all cases of vasomotor rhinitis, bronchial asthma, hives, and eczema are allergic and fall into one of these classifications. They usually represent an abnormal response to what is ordinarily a harmless substance, and the reaction is characterized by the release of a chemical substance producing a local tissue dropsy through increased capillary permeability. This chemical substance, referred to by Lewis as "H-substance," is histamine or closely related material. Atopy is recognized as the common form and the one which most writers refer to when they use the term "allergy" in a too restricted sense. This atopy has a familial distribution. Whether it is inheritable is still an open question, but it certainly runs in families. It is accompanied by transferable antibodies, so that one can do passive transfer tests with the blood of its victims.

Likewise, we have come to appreciate that with infection there is an allergic factor. In fact, in most infections the symptoms which the patient manifests are dependent upon the degree of allergy present. It is the allergic attack that makes the patient sick. Certainly this is true of many infections other than tuberculosis, and we now realize that bacteria may play three different roles in the presence of an allergic disease. The victim may be atopically allergic to the protein of the bacteria. The victim may be allergic in the tuberculin sense, and this is what is meant by the bacterial type of allergy. Finally, the infection may be complicating the allergy and, by lowering the general health of the victim, may be a precipitating factor in the production of the allergic manifestations.

So, too, contact substances, such as are seen in industrial dermatosis, primrose poisoning and ivy poisoning, are characterized by the release of the same or very similar irritating substances—"H-substance." It is now quite well established that there are cases of true physical allergy in which the patient definitely makes an abnormal response upon exposure to cold, heat, sunlight and other physical agents. This response likewise is associated with the release of "H-substance." It should be emphasized at this point that we are not to diagnose every person who has allergy upon exposure to one of these physical agents as having physical allergy. The most common one, of course, is cold. Many of our bacterial, serum, and atopic allergies will be precipitated by exposure to one of these physical agents. In most instances these physical agents act as precipitating factors only, probably because there is an associated increase vasomotor instability.

As an aside it should be emphasized that there are clinical phenomena other than those of allergy associated with the release of histamine or other "H-substances." For instance, it is recognized that the edema of cardiac failure depends more on such a release than it does upon the hydrostatic factors.

The next point that I wish to emphasize is the growing recognition of the real significance of the factors which are now usually spoken of as precipitating factors: (1) barometric changes; (2) temperature changes, heat or cold; (3) light; (4) emotional upsets and worries; (5) physical fatigue; (6) focal infections; (7) acute and chronic infectious diseases; (8) constipation, especially in food allergy with distant shock organs, such as vasomotor rhinitis; (9) bodily deficiencies and dysfunctions of ductless glands, liver infections, hypochlorhydria or achlorhydria, hypovitaminosis and avitaminosis, mineral deficiencies, undernutrition and malnutrition; and (10) mechanical and chemical irritations. These predisposing factors serve to emphasize the importance of general hygiene and good nutrition for the allergic patient. In many instances these are fully as important as the immunological treatment. Fully as much time should be spent in improving the nutrition of the patient as in indicting his offending substance.

Now, let us look into the column of the clinical manifestations of allergy, paying particular attention to those in which progress has been made in recent years. A great deal is being learned about the allergic reactions of the eye, but not much of this has been established to the point where it can be given out as dogma. Your attention is called to the fact that even a slight edema of the eyeball makes a great deal of difference in the degree of nearsightedness, and this is one of the most important reasons for controlling any atopic allergy in young people, especially students. Vernal conjunctivitis is proving to be an allergic reaction, not always atopic, sometimes contact, often bacterial, occasionally physical, but allergy is found to be the cause in most cases. May I urge that while you are working out a case of this disease,

* Read before The Northern Tri-State Medical Society at Fort Wayne on April 7, 1942.

or when the reagents are not available for a complete allergic study or management, that you resort to small graduated doses of histamine. The salt may be purchased in ampules containing 1 cc. of 1-1,000 solution. A part of this may be diluted ten times. In our practice the following schedule is used in giving daily injections: 0.10 cc., 0.15 cc., 0.20 cc., 0.30 cc., 0.40 cc., and finally 0.50 cc. Then we go to 0.05 cc. of the 1-1,000 dilution in the original ampule, and gradually increase this dosage at about the same schedule until we reach 0.30 cc., when we begin to spread out to every other day, then every third day, and then several injections of 0.50 cc. of 1-1,000 at weekly intervals. Where it is possible, it is often better to give the first eight injections in four days, i.e., twice daily. One should always be careful not to get extreme flushing or headaches. Such reactions can be quite severe and, in my opinion, are to be avoided. Some workers differ with me in this point, but I am positive you will get better results if you will avoid annoying reactions, and if you have ever had a histamine headache yourself, you will agree with me. The tolerance gained in this fashion will control the symptoms of vernal conjunctivitis. I have found this to be of great service in the treatment of urticaria and have used it routinely since 1930. Experimental work is now going on in Dr. Sheldon's clinic at Ann Arbor with an azoprotein histamine, with which the same effects can be obtained by mouth. This holds great promise, but is not available at the moment.

I shall not take time to discuss hay fever and asthma. I wish, however, to emphasize the value of large doses of pollen extract; the digestion and reaction to pollen protein when placed underneath the skin is not the same reaction that occurs in the sensitized membranes of the nose. If the dose is administered under the skin, it apparently takes several hundred times the dosage to give the same reaction as is obtained by the administration of small doses in membranes of the nose of a hay fever victim. This all speaks for the use of the larger doses and characterizes our treatment as an attempt to give tolerance rather than to produce a true state of hyposensitization. Evidence continues to accumulate showing that the optimum dose before ragweed season, here in the Middle West, is between 0.75 cc. and 1.0 cc. of a 1-10 extract.

The greatest bugbear among allergic manifestations is the perennial type of allergic coryza in which the patient complains of frequent colds, nasal blocking, nasal polypi and sinus disease. These patients are forever catching cold. Their secretion for the most part does not turn to a yellowish or greenish color. The colds become established, only to disappear and to re-occur later with surprising suddenness. Thus we distinguish between the infectious cold and the allergic cold. Practically all cases of nasal polypi may be considered allergic, most of them in the atopic sense. Some are instances of bacterial allergy. It is most important that these patients be placed under prompt control, for their neglect will eventually lead to asthma. Likewise, once their sinuses become infected the combination of allergy and infection in nasal sinuses is one of the most difficult situations that a physician is called upon to manage. I do not wish to leave you with the impression that there is anything peculiar about the non-seasonal cases of allergic coryza. It is the calendar of pollenation and the antigenic properties of the pollen granules that make skin testing and diagnosis of this one type of allergic coryza so easy. It is therefore to be expected, for the same reasons, that the non-seasonal cases are presenting greater difficulty in diagnosis. Where skin testing is not too reassuring in these non-seasonal cases of routine complaint, avoidance programs with an allergen-free bedroom and a strictly elimination diet will greatly hasten the identification of the offending substances. It cannot be emphasized too strongly that these cases must be approached in a very systematic and orderly manner or the results will not prove satisfactory. It is better to eliminate every possible offender for a short time than it is to attempt to follow out certain clues at the expense of others. The physician is here, as in other allergic problems, merely a detective, and the work of a good detective has always been characterized by the thoroughness with which he runs down all clues simultaneously.

In recent years we have been shown that in all the cases of hay fever in which the appearance of their symptoms does not coincide exactly with the calendar in regard to the pollenation of the plants whose pollens have given positive skin tests are in most instances cases which are complicated by sensitivity to fungi. Those cases of hay fever whose calendar of occurrence does not coincide with pollenation and in which there are no positive skin tests are very often cases of fungi sensitivity. In the Midwest we are concerned with the spores of alternia and also of homodendrum.

There is not much to be said about asthma. We would like to emphasize the importance of allergen-free quarters. This is not easy to do, but it is absolutely necessary. Asthma must be approached systematically and simultaneously from the viewpoint of allergy infection and general health. It must never be neglected, because when it is once established with its complications of emphysema and bronchiectasis, the patient becomes a permanent invalid and complete relief is not possible. On the other hand, most people can have complete and permanent relief from the displeasing effects of this disease if they are managed strictly. Avoidance of the offending agents is the most important single step. Graduated injections of the offending substances occupy a place of distinct secondary importance, and it should be resorted to in those cases in which avoidance is absolutely impossible. Fortunately, after a period of avoidance the sensitivity disappears in many instances, especially if

careful attention has been paid to building up the nutritional state of the patient.

Time does not permit me to go into the skin conditions to any great extent. I simply want to mention that we have the atopic eczemas of childhood, which often progress into the dermatitis of later years, without involvement of the folds of the skin or the flexure surfaces of the body, and the contact type of allergic dermatitis which we have in vesiculation and weeping, so nicely illustrated by poison ivy. In this connection I would urge that you follow very carefully the work of Doctor Shelmire of Dallas, Texas, in oral desensitization.

One of my own hobbies is the treatment of urticaria in its chronic form. Acute urticaria is, of course, a sign of acute intestinal gas or of dietary indiscretion. A laxative and a few hours' time will clear up the difficulty. In diagnosing the chronic forms we have many difficulties, and I would like to urge you to approach each case of chronic urticaria from three angles, simultaneously: (1) there is the possibility of bacterial allergy or a chronic infection; (2) there is the possibility of drug allergy; and (3) finally, there is the possibility of the atopic type of allergy. To do this we search for infections and prohibit the use of all drugs and chemicals, including laxatives, sedatives, soporifics, tonics, douches, contraceptives, nasal sprays, eye drops, mouth washes, dentifrices and scalp lotions. The common offending drugs are: quinine, ipecac, barbiturates, iodides, bromide, phenolphthalein—all opium derivatives, and antipyrine. In these days of intensive advertising, many persons do not look upon aspirin and phenolphthalein laxatives as medicine, but as routine household necessities, hence, physicians must be doubly alert to work against these common offenders. In the meantime, the investigation for the possibility of atopy is done by skin-testing if possible, but in any event by putting the patient in an allergen-free room and putting him on a beef, pear, and rice or a milk and banana diet, as fits the individual circumstances. While this systematic treatment is going on, we use histamine injections as outlined above for vernal conjunctivitis, and we attempt to correct the various precipitating factors which we may uncover in the case. This tight network drawn around a case of persistent hives will within a short time bring the answer in more than 85 per cent of the cases.

I was among the first ones to describe cases of of migraine as due to allergy. Migraine may be allergic but some cases are definitely not allergic. Apparently the largest group have to do with some interference with oxidation processes and, therefore, sometimes respond to thyroid, sometimes to the injection of large doses of vitamin B_1, and sometimes to the inhaling of oxygen. It is to be emphasized that with both migraine and epilepsy the cause may not be allergic or the victim may be atopic. In other words, the patient may have his reaction as a resultant allergic response, or he may be an allergic individual with some other difficulty in his nervous system producing either his headache or his convulsions. There is a growing recognition of the forms of food allergy. These present problems to every physician, regardless of his primary interest.

The physician, particularly the surgeon who must make the decision as to whether an operation is indicated, has found it necessary to consider the possibility that allergy may be the underlying cause of the past and present abdominal complications of the patient. In the literature there are numerous reports of allergic reactions simulating gastro-intestinal and genito-urinary disease, but in actual practice the physician who makes the diagnosis often overlooks the possibility that allergy may be responsible for some or all of the symptoms. It is now a well-established fact that allergy may be the cause of the trouble in both acute and chronic disturbances of the gastro-intestinal tract. The pathology, of course, is again that of localized edema, and the resultant variety of symptoms may be infinite, depending upon the localization, the extent, and the severity of the reactions. Prickman has stated this clearly, "A large urticaria lesion in the skin of the wall may cause simple itching; a reaction of the abdominal organs involving the parietal peritoneum may cause localized pain, tenderness and possible extravasation of the peritoneal fluid. A similar reaction, this time involving the gastric wall in the region of the pylorus, may cause pain, tenderness, nausea, vomiting and other symptoms; or involving the power in the region of the cecum, there may result symptoms and physical signs similar to appendicitis."

In conclusion, I wish to stress the preventive program in the management of atopic individuals, particularly in childhood. The substance to which one becomes sensitized if one has an allergic constitution depends upon the degree of exposure. One becomes sensitive to that substance which he has encountered most frequently or in the greatest amount. That is why feathers, milk, wheat and pollens play such an important part. Therefore, the physician should not allow patients, who have entrusted their management to him, to love hairy pets, to sleep on unprotected pillows of kapok or feathers, or to select dusty occupations for a life's work. It is, of course, certain that none of the atopic youngsters should be allowed the use of the swimming pool because of the great danger of getting the unfortunate combination of allergy and infection in the nose and accessory sinuses. These simple preventive measures, prompt investigation, and strict control through elimination-substitution-identification programs will control the situation and keep these people free from symptoms, so that they may lead normal lives.

Allergy is not a specialty and will never become such. Some of us may have more materials with which to test patients. We may have a larger fund of knowledge as to where a certain allergen

may be encountered and are, therefore, a little better armed as detectives, but fully 10 per cent of the people entering a physician's office need allergic care. Allergy is not a specialty any more than the physician is a specialist whose sign read, "Specialist in all germ diseases."

LIPOMATA OF THE OMENTUM

R. G. IKINS, M.D.
J. L. ARBOGAST, M.D.
LAFAYETTE

Tumors of the omentum seem rare. Lipoma is said to be the commonest variety, but case reports of lipoma are uncommon in the English literature. The article by Sappington[1] reports a case in a three-year-old boy and discusses nine cases which he found recorded. That many cases go unrecorded is indicated by the excellent discussion on "Malignant Tumors of the Greater Omentum," by Ransom and Samson,[2] in which they record some seventy cases of malignant tumors. Although our case belongs to the common lipoma group, the paucity of reported cases indicates that more of these cases should be recorded.

J. T., a seven-year-old white schoolboy, had a history of pollen allergy asthma from the age of one year, and lately of a gradually protuberant abdomen which gave no symptoms. Then one day the patient came home from school in the afternoon complaining of stomach ache, being doubled up with pain. Nausea was present during the morning, but no vomiting occurred. The child had a vague sensation of abdominal pain and discomfort. On physical examination the abdomen showed considerable distention, was rigid and somewhat tender due to the rigidity. A definite mass of increased consistency could not be palpated. Incidental mild dehydration and harsh breath sounds were noted at this examination. Diagnosis of acute abdomen was made by the resident physician. Under ether anesthesia the abdomen was opened and the tumor immediately presented itself. Arising within the omentum, and without adhesions, it was easily removed. The appendix was then removed before the abdomen was closed. Convalescence was uneventful and the boy remains well.

Pathological examination revealed a kidney-shaped smooth mass, weighing 2300 Gm., enclosed within the thin fibrous tissue of the omentum—yellow, fairly solid but with a spongy feel—and attached to a small portion of resected omentum. Vessels leading to the mass showed complete thrombosis. Cut section showed a fatty, waxy surface marked off by thin fibrous septa into several large nodules. Hemorrhage into the tumor was marked by red flecks and larger red splotches. Sections showed it to be composed of ordinary fat cells which gave no indication of malignant transformation. Special fat stains with sudan III and osmic acid confirmed the fatty character. There were many dilated lymphatics and considerable acute inflammatory infiltration about thrombosed channels. Diagnosis was "solitary lipoma of the omentum with associated venous thrombosis."

As is common in these tumors, preoperative diagnosis was not made. The symptoms were those usual to intra-abdominal pressure from any cause: slight dyspnea, fullness and discomfort after eating, and indefinite abdominal pain probably due to gas or disturbance in circulation. Added to this was the acute attack of pain, which is adequately explained by the thrombosis noted in the specimen.

The superficial midline position of an omental tumor aids in eliminating tumors of kidney and spleen. Tumors in the liver follow respiration and cannot be distinguished from hepatic dullness. Omental tumors are generally movable. Mesenteric tumors are also midline in position, somewhat movable and show little respiratory motion. However, because they are located more posteriorly, loops of bowel pushed anteriorly give tympany on percussion. Ascites and more frequent abdominal crises and gastro-intestinal disturbances may aid in differentiation. Growth from above downward may aid in distinguishing from uterine or adnexal tumors. The superior border is often concave in omental tumors, but convex in ovarian cysts. Accurate clinical diagnosis is seldom possible, and the true nature is disclosed only at operation or necropsy. The early symptoms of pain and tumor, coupled with weight loss and digestive disorder, are so common that suspicion of this unusual condition is seldom aroused, and even tumor or ascites fails to establish a definite diagnosis as to its true nature.

[1] Sappington, Ernest F.: Lipomatosis of the Omentum, *J. Am. Inst. Homeopathy*, (Oct.) 1932.

[2] Ransom, H. K., and Samson, P. C.: Malignant Tumors of the Greater Omentum, *Annals of Surgery*, **100**:523-34, (July-Dec.) 1934.

THE ROLE OF UROBILINOGEN IN LIVER METABOLISM AND EHRLICH'S TEST FOR URINARY UROBILINOGEN

FRANK NEUWELT, M.D.
GARY

The modern trend in medicine has been towards an increasingly scientific approach to clinical and laboratory problems. Old-fashioned clinical acumen and rules of thumb are being deprecated and forced into the background while the newest and most complicated scientific laboratory procedures are the vogue. A beautiful example of just this is the subject at hand, namely, the bilirubin-urobilinogen enterohepatic cycle and the very simple but old fashioned urobilinogen test of the urine. The older generation of clinicians is probably far better acquainted with this test and its clinical and prognostic significances than we of the younger and perhaps more enlightened generation. It is true that we know more about the enterohepatic circulation of bile than was known a generation ago, but the urobilinogen test was utilized to its utmost then. All of the theoretical and physiological facts were not known, but the practical application was fully realized.

Liver function tests have come to play a very important role in liver disease and the study of jaundiced patients. Most of us, unless we are particularly interested in the subject, have become confused by the welter of material available in the literature on liver function tests in jaundice and liver disease. A variety of tests are available, some simple of performance, others extremely complicated and difficult. And yet, in most instances one is merely interested in knowing what is going on in the liver: what is the progress of the jaundice? what is the state of the liver parenchyma? The simple observation of daily stools and urines and the performance of the urobilinogen tests will in most instances tell us this. One does not have to worry about hippuric acid test, bromsulfalein excretion, galactose tolerance, cephalin precipitation test, et cetera. A minute's attention daily to the urine and stool of the jaundiced patient enables us to follow his course.

It seems almost ridiculous to state that one could follow the course of compensation in a case of rheumatic heart disease by means of the urobilinogen test. And yet, this is so! As right heart failure comes on, passive congestion of the liver occurs, the urine becomes somewhat darker in color, and there is an increase in the amount of urobilinogen excreted. The liver cells are affected by the edema and fail to remove urobilinogen from the blood stream as normally. As compensation improves, liver hyperemia becomes less and the urobilinogen content of the urine becomes normal; or, the pneumonia patient has a dark amber urine with marked increase in urobilinogen. The toxic state caused by the acute infection has affected the liver parenchyma; the blood stream is not cleared of the usual amount of urobilinogen and the kidneys excrete this excess. Any toxic state will produce a similar phenomenon. It is interesting to examine a battery of fresh morning urines from a series of patients and attempt to pick out those containing increased amounts of urobilinogen, do the actual test to confirm this, and then ascertain what the cause for this increase may be.

One asks, "Why have and use all of these newer liver function tests when the simple test tells us so much?" The answer is that in most cases these tests are not necessary in order to follow the course of a "liver case," but are more or less justified from the scientific and academic standpoint. It is true that in some cases of jaundice all our scientific and laboratory acumen is of no avail in establishing a definite diagnosis, but such cases are in the minority. Another important and practical point relative to most of these liver-function tests is that from a differential diagnostic point of view they are most useful only during the early stages of liver disease. In case of severe liver damage these tests have little quantitative significance, and under the circumstances one does not require such tests to know that severe parenchymatous liver damage has occurred.

The liver has manifold functions: bile pigment metabolism is only one of these functions, albeit an important one. The predominant bile pigment is bilirubin which is formed by the reticuloendothelial system from the hemoglobin of old and broken down red cells. The bilirubin—known as bilirubin A, or hemobilirubin—is bound in some way to a protein or colloidal molecule and is not filtered through the kidneys into the urine. It is this bilirubin A, or hemobilirubin, which gives the indirect van den Bergh reaction; normally the indirect van den Bergh reaction is always present. Bilirubin A is then taken from the blood stream in its passage through the liver parenchyma and is secreted into the bile capillaries as bilirubin B, or cholebilirubin. Bilirubin B is bound only loosely to the protein molecule due to certain surface tension phenomena, and under pathological conditions the blood serum gives a positive direct van den Bergh reaction. This cholebilirubin is found in the urine in conditions of obstructive jaundice. Ordinarily bilirubin B passes down the bile capillaries and enters the intestine as one of the main constituents of the bile. In the intestinal tract part of the cholebilirubin, after oxidation, is excreted directly in the feces, while part of it is changed by oxidation, et cetera, to urobilinogen. The greater part of this urobilinogen is excreted in the feces too; the remainder is reabsorbed into the circulation. This reabsorbed urobilinogen is

in turn partly excreted by the kidney and is found in the urine, while the rest is taken out of circulation by the liver and probably reconverted to bilirubin to begin the enterohepatic bile cycle. The urobilinogen is converted to urobilin upon standing, so that Ehrlich's test must be done on a fresh urine specimen.

A number of precise chemical methods are available at present for the quantitative determination of urobilinogen, but, on the whole, our simple test suffices. Ehrlich's reagent consists of a 2 per cent solution of dimethylparamidobenzaldehyde in 20 per cent hydrochloric acid. This solution is stable and a four to six ounce bottle lasts a long time. Five to eight drops of this solution are added to two to four cc. of urine in a white-walled test tube. Normally a red tinge appears, best seen by looking down through the solution against a white background. This color deepens markedly upon heating. If there is no red color after heating, that indicates absence of urobilinogen, and a marked red color, which appears as soon as the Ehrlich's reagent is added to the urine, indicates an increased excretion. One who is familiar with this test is easily able to quantitate the amount of urobilinogen present.

We are now prepared, from what has been presented above and from the findings in examinations of stool and urine, to determine what is going on in the liver and the biliary pathway. In hemolytic jaundice an excessive number of red cells are destroyed, so that the liver is unable to metabolize all the bilirubin in the circulation. Jaundice of slight to moderate intensity is present because the liver is unable to metabolize bilirubin A sufficiently fast to maintain a normal icteric index. The stools, of course, are highly colored because excessive amounts of bile are passing into the intestinal tract. The liver has to deal not only with hemobilirubin (bilirubin A), but also with the increased amounts of urobilinogen which are re-absorbed into the blood stream from the intestine. This excess passes into the urine and we find an increase in urobilinogen, but no bilirubinuria, hence the name of acholuric jaundice.

In an obstructive jaundice bile is unable to pass into the intestinal tract. For the first day or so one finds a tremendous increase in the indirect van den Bergh reaction; no bile in the stool, and we have acholic or clay colored stools; no bile in the intestine, no formation of urobilinogen and thus no reabsorption. The kidney excretes no urobilinogen and Ehrlich's test is negative. Bilirubin B being unable to pass down the intestinal tract is dammed back and is regurgitated or absorbed into the blood stream, and part is excreted by the kidneys, the urine becoming deeply bile stained. Thus, with complete obstruction we have acholic stool, no urobilinogen and 4-plus bile in the urine. No elaborate test can tell us any more. It is an old clinical axiom that when one finds no urobilinogen in the urine for ten to fourteen days, but finds that the urine is heavily bile-stained and the stools are persistently acholic, one should be very suspicious

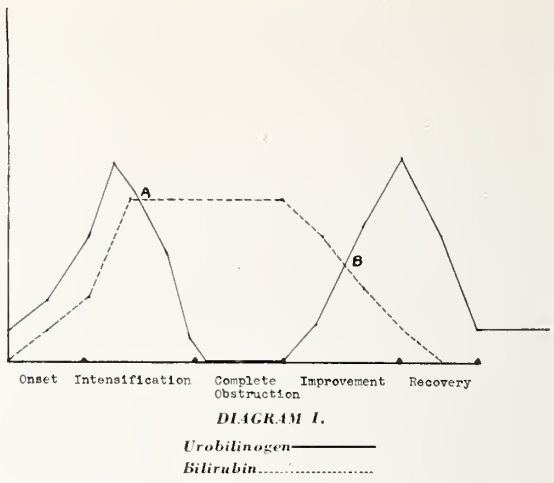


DIAGRAM I.

Diagram is entirely schematic. Rise and fall of urobilinogen illustrated both with intensification and recovery from disease. Crossings of two curves at A and B are very significant. At point A bilirubinuria is still rising while urobilinogen is falling due to almost complete intrahepatic obstruction. At point B more and more bile is entering the intestine, but the damaged liver is unable to metabolize the increasing amounts of urobilinogen.

of a malignant obstruction.* Benign obstruction or parenchymatous jaundice rarely produces such a picture for so long an interval of time. In incomplete obstruction some bile passes intermittently into the intestine; there is a bilirubinuria and variable amounts of urobilinogen in urine and stool.

The most interesting changes in urobilinogen excretion occur in cases of parenchymatous liver disease, particularly the acute hepatitides. The course of such a liver disease may be followed very closely by means of observation of urine and stool, especially the former. One must realize that in acute liver disease the changes observed are due not only to the fact that the liver parenchyma is severely damaged and bile pigment metabolism does not go on normally, but also because of edema, destruction of normal anatomical pathways, clogging of the bile capillaries with debris and inspissated bile, and an actual obstructive phase is also present. In an early stage of the disease jaundice is present because bilirubin B has regurgitated back into the blood stream due to the mechanical factors mentioned above. At the same time less bilirubin A has been converted to bilirubin B because of decreased liver cell function. At this stage stools are normal and urine urobilinogen is present. As the disease progresses in the liver, changes occur: the jaundice deepens; the production of urobilinogen in the intestine is unchanged; but as the absorption and conversion of urobilinogen by the liver is impaired, increased amounts are excreted in the urine. Due to the obstructive elements of the disease, bilirubin B (bile) begins to be excreted in the urine and the stool bile may still be normal in quantity. In the more severe stages of the disease changes continue. The jaundice becomes ex-

* Under special circumstances one may find urobilinogen in the urine despite complete obstruction.

treme (reddish in color); much bilirubin regurgitates into the blood stream, and less passes into the intestine. Hence, the bilirubinuria increases; at the same time the urobilinogenuria, which has been increasing steadily, begins to decrease since less and less bile is getting into the intestinal tract. Thus at the height of the classical syndrome we have the picture of a complete obstructive jaundice, and at this point, unless one has followed the case, one may not be able to distinguish this parenchymatous jaundice from a case of pure obstructive jaundice. As improvement sets in we get the mirror-image of the above process. Diagram I aids in visualizing this. As urobilinogen begins to appear again in the urine, the bilirubinuria and the icterus begin to decrease. The urobilinogen content of the urine again rises to a high level as more and more bile begins to enter the intestinal tract, while the liver cells are still too damaged to metabolize all the bile and urobilinogen. Then, as the liver function improves the level of urobilinogen in the urine drops to normal. It is indeed fascinating to study the course of a case of toxic hepatitis by the above means. One is always cognizant of the actual process going on in the liver at any particular moment.

The *raison d'être* for this whole paper has been to emphasize the value and importance of a simple but much neglected laboratory test, Ehrlich's urobilinogen test of the urine.

PROCUREMENT OF PHYSICIANS

Preventable illness and unreasonable demands on the time of physicians must be reduced to a minimum because of the urgent need for physicians for the armed forces, Paul V. McNutt, chairman of the War Manpower Commission, declared in a special statement for *The Journal of the American Medical Association* on "The Procurement of Physicians." The statement, published in the June 27 issue, is as follows:

"On June 8 I described to the American Medical Association at its Atlantic City meeting the acute need for physicians for the military services. I pointed out how far the recruitment of physicians lagged behind expected quotas. In conclusion I stated bluntly the fact, which could not have been evaded by any analysis, that unless voluntary recruitment progressed more rapidly some more rigorous form of selective service must be resorted to.

"Those facts were necessary in order to permit the medical profession to diagnose its own case. And the case is urgent; physicians are members of what is probably the most indispensable of all professions. Despite the harshness of the facts and the bluntness with which I had to state them, I felt that the profession should be informed.

"In fairness to the recruitment record of many of our states, it seems in order at this time to give the profession some further idea of how its problem is distributed. The failure of a sufficient number of physicians to volunteer for military service is not spread thinly over the whole country. There is an acute lag in certain populous states. Other states have supplied nearly all that they should supply.

"We need more than twenty thousand additional physicians by the end of this year. But eight states —New York, Illinois, California, Pennsylvania, Massachusetts, New Jersey, Michigan and Ohio—should account for nearly sixteen thousand of that shortage.

"By contrast, sixteen states have fewer than a hundred physicians to go to reach the total number they should supply. In order not to deplete unduly available medical service in those areas, we are asking that the Medical Officers Recruiting Boards be withdrawn and that further enlistments from those areas be then discouraged except in the case of the men under 37 in the urban areas. Those states are Alabama, Arizona, Delaware, Idaho, Louisiana, Mississippi, Montana, Nevada, New Mexico, North Dakota, South Carolina, South Dakota, Utah, Vermont, Wyoming and Virginia.

"The acute problem for the next few months for those states is an equitable distribution of medical service within their borders. This will avoid the necessity for any consideration of plans to allocate doctors from other states to meet civilian needs.

"More than one hundred and thirty thousand physicians have returned their registration forms to the Roster for Scientific and Technical Personnel. Those forms are now being processed. When that work is complete we shall be able to give the profession a more comprehensive report on the relation of available medical service to wartime needs.

"The seriousness of the deficit in the number of physicians available for armed forces should not be underestimated. The need must be met. It will be met by one method or another. Neither must we underestimate the serious drain this puts on available medical services in civilian communities. It will mean long hours and hard work—sacrifices which will multiply the deep debt that every community owes to its physicians.

"It cannot be met simply by multiplying the hours of the physicians who are left. There will be a real need to exercise every possible means for minimizing unnecessary medical services in order that the real needs may be met.

"It is my belief that the lag in recruitment has been due chiefly to the fact that the individual physician has not realized the genuine urgency of the need. Measures must be taken which will bring those home to every individual. This means that there will have to be some education of the general public. Preventable illness must be reduced to a minimum. Unreasonable demands on the physician's time must be reduced to a minimum. Thus only may available medical service adequately cover the needs."

LOWERING THE MORTALITY OF THE POOR SURGICAL RISK

MISCH CASPER, M.D.
LOUISVILLE, KENTUCKY

In the pioneer days of surgery, when an operation was viewed as a last resort, usually hopeless, the mortality rate was consequently so high that only the desperate patient would submit to the knife. The general attitude of the public contributed to the high mortality.[1] The surgeon was not thought justified, for example, in removing an ovarian tumor until it got so large that the patient's family, neighbors, and friends could see that unless it was removed the patient would die. The delay, of course, made the risk of the operation greater. As the years have brought us more diagnostic and treatment aids, and as the public has come to look upon surgery as a friend in need instead of a last resort, just so have mortality rates progressively fallen. Before we can become too complacent about our success, however, we still have much to do in order to lower further the mortality rate in surgery, especially in the poor-risk patients whose cases were formerly considered hopeless. During the past few years a gratifying measure of successful surgery on poor risk cases has given the profession the satisfaction that much is being done, and that in the future still more will be achieved towards our goal. Our first realization must be that in spite of every precaution that can be taken we shall always have the poor risk with us, especially now with the stepped-up tempo of the times. The press and radio are constantly reminding us that we shall have extra burdens and duties as a result of the war; hence, it behooves us of the medical profession to be on our toes, so that we shall be prepared to handle anything and everything that comes to us, in order that there will be no Pearl Harbor incident in the medical ranks.

In this paper we shall consider first the causes contributing to the poor surgical risk, then dwell briefly on various methods of treatment, mentioning in passing those aids in diagnosis and treatment that are making it possible for us to lower the mortality rate.

The causes underlying the poor surgical risk are legion. Following are a few that are important from the standpoint of therapy:

1. The list is headed by delay; procrastination is not only the thief of time but the promoter of high mortality. We are constantly getting the ruptured or abscessed appendix in spite of being on the alert for early cases. Any disease that progresses insidiously and with pain almost completely absent, such as cancer, is conducive to delay. We are sometimes prompted to say that pain is often the patient's friend, and certainly a friend to low mortality. The element of delay must be combated by the family physician, with the cooperation of the social worker and lay societies. We should never miss an opportunity to educate these groups on such subjects as the cancer problem, acute fulminating diseases, so-called "acute abdomen," "violent infections," and many additional conditions. The importance of early blood tests, x-ray examinations, laboratory tests, and other diagnostic aids should be stressed to the public.

2. Old age, though not *per se* a cause of high mortality, does, of course, contribute to it, because it is so often accompanied by diseases of vital organs peculiar to that time of life. We should like to interpolate here the relative mildness of the symptoms of appendicitis in the elderly patient. Keeping this in mind will often avoid delay in sending the patient to surgery. We must also remember the greater sensitiveness of the aged patient to all drugs and anesthetics, and give smaller dosages. Elderly patients are inclined to treat themselves for many conditions that need the attention of a doctor, one common example being hernia. They think that they will eventually have the same success in reducing the strangulated hernia that they have previously had in reducing the uncomplicated hernia, and thus they delay too many hours with a serious strangulation. The elderly patient will stand any operative procedure providing his vital organs can be gotten into near formal functioning, although some cases require long preoperative hospitalization. Consider the greatly improved mortality in the prostatic, the gastric, and the colon resection, most of which occur in those well past middle life.

3. A third cause of high mortality is the lack of sufficient preoperative hospitalization. Giving the patient a little more time prior to surgery not only often saves hospital time for the patient following the operation but it frequently saves his very life. Sometimes patients do not readily become accustomed to the environment of hospital life; many persons do not sleep well, even in a hotel, the first night away from home, especially the elderly patient. Sleeplessness the night before operation can and should be controlled, for lack of proper rest makes for a poorer surgical risk.

4. Serious pathogenic states such as diabetes, thyrotoxicosis, nephritis, heart disease, hepatic pathology, and cardiorenal combinations are important. Diseases, both functional and organic, of other vital organs, tissues, or the blood stream and vessels are also just as important.

5. Functional states should be headed by shock, or shock and hemorrhage, and their causes, such as severe trauma, prolonged states of illness and so on, should be treated after first overcoming the shock. Hypertension, neuroses and psychoneuroses,

[1] Clapesattle, H. B.: *The Doctors Mayo*, p. 214.

toxemia, anemia, dehydration, and acidosis or alkalosis likewise show frequent and serious functional imbalance.

6. Obesity, avitaminosis, and hormone deficiency carry a high mortality, about twice as high as that of the average patient, in major surgery.

7. Emergency surgery naturally carries a higher mortality because of the lack of time for proper preparation of the patient, for combating infection, for restoration of deficiencies or functional states of all kinds, as well as for amelioration of any organic disease present.

8. In pioneer surgery anoxia was a chief cause of high mortality, and even today, according to Chase,[2] it is the greatest single hazard to the surgical patient. It is especially a serious liability in shock and other poor risk surgical cases. Anoxia is due to four distinct causes: (a) defective respiration and lung aeration; (b) depressed circulation or very low blood pressure; (c) anemia, methemoglobin (the latter may be present in oversaturation of blood with sulfon drugs); (d) deficient tissue aeration or oxygen utilization, the latter is very prone to occur at operation on the saturated alcoholic. The detection of anoxia is not always easy, as symptoms may be confused with symptoms of other conditions or of the main disease itself. A careful checkup of the respiratory, circulatory, and nervous systems is very revealing; also a check on eyegrounds is a great aid, for the blood vessels of the fundus are dilated in anoxia. Naturally, oxygen under pressure is quickly active in relieving and restoring the patient. When there is doubt, oxygen should be given. Most professional anesthetists realize this danger and now use oxygen more freely than formerly. Many very poor risks are thus tided over a precarious danger period to ultimate recovery.

Many other causes and combinations of causes of the poor surgical risk could be enumerated, but it is well to look at the patient as a whole and not view his surgical pathology as a lone entity. This is essential in the preoperative preparation of the patient, which is the great *sine qua non* for lowering mortality in the gravely ill patient.

It is of great importance to give the patient a thorough physical examination, as many minor defects can thus be correlated and corrected. In some instances proper preparation for surgery should begin months before. We like to compare this preparation to that of an athlete who spends much time building up his system to physical perfection. It is just as important for patients who have the necessity of an operation awaiting them to achieve as high a state of physical well-being as possible in order to lessen the risk. In many cases hospitalization or bed rest is necessary, especially in the goitre case—and may I here digress long enough to emphasize that iodine should not be given to a goitre patient who is not hospitalized and ready for operation, for iodine is in no sense a cure and merely ameliorates the symptoms. Rest in bed is a great restorer to the cardiorenal and hypertensive cases, and is also valuable in many functional conditions. Rest promotes better metabolism, stores energy, and improves all vital functions. Old persons are sometimes slow to become reconciled to the bed; indeed, with cases such as prostatics we prepare them better by keeping them out of bed both before and after operation. Likewise, hip fractures do much better, both in morbidity and mortality, if kept out of bed. They often die of complications of the bedridden, such as uremia, pneumonia, and trophic ulcer. Let them roll in a wheel chair while they heal.

The diabetic patient is now readily prepared for any operation—thanks to insulin, diet, and so on. The blood sugar must be reduced to and maintained at normal levels.

Shock, hemorrhage, and even anemia are now greatly benefited by free and frequent blood transfusions and the use of plasma and serum before, during, and after operation. This method supplies the blood with blood protein and essential salts, thus combats infection and is one of our best procedures not only to lower mortality but to increase operability. Hypoproteinemia, next to correction by blood or plasma transfusion, may be corrected by giving amino acids of hydrolyzed casein intravenously. According to Elman,[3] it should be given slowly (10 to 15 Gm. per hour) at which rate it does not produce reaction or diuresis.

Intravenous fluids, glucose, and salts are a close second to transfusion before, during, and after operation. We now seldom have the deaths of early surgical days from dehydration, acidosis, etc. Even forcing fluids by mouth for a day or two is a great conditioner for operation, also checking on intake and output of fluids, thus establishing and maintaining a proper balance of bodily fluids. The anemias, both pernicious and secondary, should have prolonged treatment in preparation for serious surgery. Liver shots, iron, and proper diet should be given, and vitamin balance established.

The use of vitamins and hormones is rapidly assuming a proper place in the surgical case. It has been shown by Spies[4] that when patients with border-line vitamin B complex deficiency syndromes are given large amounts of dextrose parenterally, the small amount of B complex is soon used up in metabolizing the extra dextrose, and he advises that undernourished patients who receive injections of dextrose should receive supplemental doses of water-soluble vitamin. Sydenstricker,[5] De Bakey and Smith,[6] Rosenblum and Jolliffe,[7] and Snell[8]

[2] Chase, S. G. O.: *International Abst. Surg.* **73**: (Jan. 5) 1941.

[3] Elman: *Annals Surg.* (Oct.) 1940.

[4] Spies: *Jour. A.M.A.* (Sept. 2) 1930.

[5] Sydenstricker: *Ann. Int. Med.* **14**: 1499, (March) 1941.

[6] De Bakey and Smith: *New Orleans Med. & Surg. Jour.* 1941.

[7] Rosenblum and Jolliffe: *J.A.M.A.* Dec. 27, 1941.

[8] Snell: *Iowa St. Med. Jour.* (Aug.) 1940.

of the Mayo Clinic all confirm this important finding. Many of these very bad cases are usually deficient in vitamins as well as calories, and hence both of them should be given intravenously for prompt response. Many cases of postoperative edema will thus be prevented. It was long thought that this edema was due to weakness in the circulatory system, too much NaCl., or waterlogging with too much fluid. According to the writers mentioned above, the edema is due to faulty metabolism of the extra supplied glucose or dextrose, and vitamin B complex, especially thiamine hydrochloride, is a factor in promoting full metabolism of this glucose. These vitamin B factors act as a co-enzyme in the utilization of dextrose.

Some of the other well-known vitamins act as well towards keeping the poor-risk patient on the safe side of our mortality records. The long-established practice of giving pre- and postoperative cases forced fluids and citrus fruits is thus explained because of the great value of fluids and vitamin C. Tubercular patients are deficient in vitamin A as well as C. Vitamins A and D are also of great value when indicated, and are often deficient in a poor diet or from poor digestion and assimilation of the vitamins. Patients with disease of the upper gastro-intestinal tract are hard to prepare for heavy surgery, because they are starved, dehydrated, and deficient in nearly all the vitamins. Intravenous feeding will not always restore these patients to safe operative risks, and a preoperative jejunostomy may be necessary for feeding predigested, balanced rations and vitamins over a long period of time.

Vitamin K is one of the most spectacular of the newer vitamins in the hypoprothrombin states. Surgical cases that have jaundice are thereby made more safely operable, the mortality rate being distinctly lower.

Some of the hormones are valuable aids in the important process of metabolism. We would head the list with thyroid extract. The hormone of the adrenal cortex is another that we like to give to very sick patients, especially to combat shock, an hour or so before a serious operation. Adrenalin and pitressin are too well known to mention, but are sheet anchors that tide many patients over the sometimes very thin dividing line betwixt life and death. Likewise, ephedrine is a valuable preoperative agent to prevent shock and fall of blood pressure.

For myocardial weakness, especially when accompanied by tachycardia, a course of digitalis is still the drug of choice. We like quinidine best for auricular fibrillation, with a slow heart, but quinidine and digitalis may be given together.

One of the most difficult patients to prepare is the obese patient. His conviction that he is too healthy makes it difficult to secure cooperative preparation. The obese are usually deficient in vitamins A and C, and are loaded with stored-up sugar. If adequate and balanced diet is given, there is no doubt that the mortality of the obese patient can be reduced, but weight reduction must be over a long period of time and must be carefully supervised. Hormones may aid, but these, too, must be supervised by the watchful physician.

The sulfon drugs have done more to combat infection and to lower mortality than any one agent in this generation. The physician should give these drugs guardedly, should watch out for idiosyncrasies, should not give them over too long a period of time, should especially beware of danger when the drugs have been stopped and then started again after an interval of a day or so, and lastly, he should give them scientifically, watching blood states and blood concentration. Sulfons may be used prophylactically in probable postoperative infections, such as that in prostatic resection. Postoperative pneumonia mortality is now practically nil since the sulfons are used.

Careful selection of anesthesia has greatly reduced mortality. We prefer local anesthesia if possible, then regional, spinal, and so on. Why give general anesthesia when anesthesia of the part will suffice? Local anesthesia has been a great aid to more and better brain surgery, and spinal anesthesia has been a boon to abdominal surgery. The newer gases, given with much oxygen, are often life-savers to the poor-risk patients. Regardless of the type of anesthetic, proper preoperative analgesia makes for a better patient and should always be given. Anesthetic agents, multiple or single, properly selected for the type of patient and operative procedure, have been a great factor in lowering mortality.

Multiple-stage operations are not the most spectacular, but often carry the element of safety in poor-risk cases. Operating against time is now out; our work should be deliberate and considerate, and only that speed which is consistent with good work should be attempted.

Postoperative gastric decompression has been a great lifesaver in our service. It should be used early, and the competent nurse should be instructed in the use of the duodenal tube. Much vomiting will thus be prevented and, what is worse, absorption of the decomposed gastro-intestinal contents, as well as acute gastric dilation.

Many patients think they are well on leaving the hospital, but there are none who do not need medical care for a period of time, and the poorer the risk the longer it takes for thorough rehabilitation and full recovery. To accomplish this there must be complete cooperation to the minutest detail between the surgeon and the family physician. Good teamwork of the surgical force, capable interns, and the ever-valuable trained nurse are factors of primary importance in safely guiding a patient through a serious surgical illness. At the time patients leave the hospital we instruct them to report to their family physician, and in cooperation with him we like to give them a few check-ups ourselves. It is our aim to maintain not only a low mortality but a low morbidity.

After complete recovery the best and cheapest insurance the recovered poor-risk patient can have is a yearly check-up by the family physician.

It is our responsibility as physicians and surgeons to give to our country through our medical practice every scientific aid known to our profession; to keep our country fit by administering efficiently to the needs of sufferers; and so to offer hope of rehabilitation to many who were formerly such poor risks that palliative measures were all that could be hoped for. By assiduous study and diligent care we can now winnow out much valuable wheat that formerly was considered to be chaff.

PENICILLIN CHEMOTHERAPY OF MICE INFECTED WITH STAPHYLOCOCCUS AUREUS*

H. M. POWELL, Sc.D.
W. A. JAMIESON, A.B.
INDIANAPOLIS

We have used penicillin[1,2,3] and sulfathiazole orally in a comparative way in the treatment of mice infected intraperitoneally with different cultures of *Staphylococcus aureus*. The penicillin was partially concentrated material previously reported equally effective against both normal and sulfonamide-fast strains of Types I, II, and III pneumococci.[4] The staphylococci which we used in the present study included five cultures (Strains 679, 279, 828, 821, and 885) received from Dr. W. W. G. Maclachlan, of Pittsburgh, and one culture (Strain A 13) received from Dr. L. A. Julianelle of Saint Louis. The former cultures were selected upon the basis of their high virulence for mice when injected intraperitoneally in decimal dilutions in 5 per cent mucin solution. The latter culture, Strain A 13, while not so high in virulence, appeared to be of importance in view of its use in the preparation of therapeutic Type A anti-staphylococcus rabbit serum. The most virulent culture, Strain 679, has been used in this laboratory as a standard strain in many chemotherapeutic tests during the past two years. The use of several test cultures in the present report controlled strain selectivity of the two drugs.

A total of 1080 mice of approximately 20 Gms. each were each injected intraperitoneally with different decimal dilutions of the six staphylococcus cultures in 5 per cent mucin solution as shown in Table I. The various dilutions of culture were prepared from six-hour agar slants, and a mouse dose of 10^{-3} cc., for example, refers to a thousandth part of a slant. The 180 mice injected with each culture were divided into three groups of 60 mice each as indicated by vertical columns in the table. One of these groups was treated with sulfathiazole; a second group was treated with penicillin; while the third group was used as nontreated controls. Each of these three groups of 60 mice included similar subgroups of 10 mice injected with a series of 6 decimal dilutions of culture as indicated in Table I.

Penicillin therapy comprised use of ten oral doses of 20 mgm. each, four doses being given at two-hour intervals on each of the first and second days, and two doses being given with an eight-hour interval on the third day. A dose of 5 mgm. sodium bicarbonate was given with each dose of penicillin as an added protection against gastric acidity.

Sulfathiazole therapy comprised the use of five oral doses of 20 mgm. each, two doses being given with an eight-hour interval on each of the first and second days, and one dose being given on the third day.

The quantity of both drugs administered to white mice with early staphylococcus peritonitis was as nearly optimum as could be determined in preliminary experiments not reported here. Initial drug doses in all instances were given within an hour after infection, and all overnight intervals when no drug was given were sixteen hours. We have noted that the use of mucin-coated cultures in establishing mouse infections by the intraperitoneal route brings about early toxic symptoms, and optimum chemotherapy must not be too rigorous. Final readings in these tests were made fourteen days after the injection of cultures.

It is observed from the results shown in Table I that the virulence of the cultures was such that 98 to 100 per cent of control-mice were killed by doses of 10^{-3} to 10^{-5} cc., and about 50 per cent of the control-mice were killed by doses of 10^{-7} to 10^{-8} cc.

(* From the Lilly Research Laboratories, Indianapolis, Indiana.)

[1] Fleming, A.: On the Antibacterial Action of Cultures of a Penicillium, with Special Reference to Their Use in the Isolation of B. Influenzae. *Brit. J. Exper. Path.*, **10**: 226-236, 1929.

[2] Chain, E.; Florey, H. W.; Gardner, A. D.; Heatley, N. G.; Jennings, M. A.; Orr-Ewing, J., and Sanders, A. G.: Penicillin as a Chemotherapeutic Agent. *Lancet*, **2**: 226-228, 1940.

[3] Abraham, E. P.; Chain, E.; Fletcher, C. M.; Florey, H. W.; Gardner, A. D.; Heatley, N. G., and Jennings, M. A.: Further Observations on Penicillin. *Lancet*, **2**: 177-188, 1941.

[4] Powell, H. M., and Jamieson, W. A.: Response of Sulfonamide-fast Pneumococci to Penicillin. *Proc. Soc. Exper. Biol. and Med.*, **49**: 387-389, 1942.

TABLE I

COMPARATIVE STAPHYLOCOCCUS CHEMOTHERAPY

Culture doses (cc.)	NUMBERS OF MICE SURVIVING OUT OF GROUPS OF 10 MICE USED																	
	Culture No. 679			Culture No. 279			Culture No. 828			Culture No. 821			Culture No. 885			Culture A-13		
	S*	P	C	S	P	C	S	P	C	S	P	C	S	P	C	S	P	C
10^{-3}	0	2	0	2	3	0	0	7	0	0	5	0	0	0	0	1	2	0
10^{-4}	0	6	0	4	10	1	3	7	0	4	10	0	2	7	0	5	3	0
10^{-5}	0	4	0	4	9	0	8	9	1	4	8	0	8	6	1	9	9	1
10^{-6}	0	3	0	8	9	4	5	10	2	7	9	3	6	9	2	6	6	5
10^{-7}	2	6	0	6	8	5	8	8	5	10	10	6	6	7	3	7	8	8
10^{-8}	4	5	2	7	7	9	6	9	7	6	9	7	8	10	5	8	8	8

* Chemotherapy legend:
S=Sulfathiazole, 20 mgm. x 5 doses.
P=Penicillin, 20 mgm. x 10 doses.
C=Controls.

of the cultures. It is observed also, from the results shown with the various test mice, that both sulfathiazole and penicillin possess considerable curative action against staphylococcus infections due to different strains of organisms in white mice. Of the two agents, penicillin in the dosage used is demonstrably better than sulfathiazole, especially when the more virulent cultures, such as No. 679, are used. With less virulent cultures, such as A 13, both drugs are about equally effective. In general, the smaller infecting doses of culture are easier to combat than the larger doses; however, there is some variability in efficacy of both drugs, not always related to size of culture dose. No explanation is offered for this, other than possible irregularities in the action of the mucin.

A summary of all mice on all doses of the various cultures used shows 69 per cent, or 248, of the penicillin mice survived; 45 per cent, or 164, of the sulfathiazole mice survived; while 23 per cent, or 85, of the control mice survived. If one discounts 85 survivors from each of the therapeutic groups (since, as judged by the controls, these would have lived with no therapy), approximately 60 per cent, or 163, of a possible 275 mice were saved by penicillin and 30 per cent, or 79, of a possible 275 mice were saved by sulfathiazole, giving a two to one ratio in favor of penicillin.

ABSTRACT

PHYSICIANS SAY MALNUTRITION IS WIDESPREAD IN THIS COUNTRY

"The evidence at our disposal warrants the conclusion that dietary inadequacies and malnutrition of varying degrees are of frequent occurrence in the United States and that the nutritional status of an appreciable part of the population can be distinctly improved," Norman Jolliffe, M.D., New York; James S. McLester, M.D., Birmingham, Ala., and H. C. Sherman, Ph.D., Sc.D., New York, declare in summarizing a paper on "The Prevalence of Malnutrition," published in *The Journal of the American Medical Association* for March 21. "If optimal nutrition is sought, not mere adequacy, widespread improvement is possible," they add.

In the introduction to their paper they explain that "Recent estimates of the prevalence of malnutrition in the United States have varied so greatly that the Food and Nutrition Board of the National Research Council has assigned to us, as a subcommittee, the task of evaluating existing evidence on this question. Among the reasons for the widely varying estimates is the lack of criteria for the diagnosis of malnutrition. It is therefore necessary before discussion of the evidence that terms be defined.

" 'Nutritional failure' exists as soon as adequate amounts of an essential nutritional factor or factors fail to reach the 'milieu interne.'

" 'Dietary inadequacy' means the failure to ingest an essential nutritional factor or factors in amounts sufficient to meet the existing requirement of the body.

" 'Nutritional inadequacy' means not only the failure to ingest, i.e. dietary inadequacy, but failure to absorb, to retain and to utilize an essential nutritional factor or factors in amounts sufficient to meet the existing requirements of the body.

" 'Malnutrition' is a bodily condition, detectable by any method of examination, caused by a nutritional inadequacy."

In their summary they say that "Malnutrition is accompanied by manifold signs and symptoms, diverse in nature, and to the casual observer their origin and significance is not always apparent. Some types of malnutrition are strikingly obvious to everyone, some are apparent only to the physician who looks for them and some are vague and elusive even to the careful observer using the most accurate specialized technics. If the first group alone is counted the prevalence of malnutrition will be recorded as low, almost negligible. If the second group is counted, it will be recorded as high. If the third group is included then the rate will be sufficiently high to occasion genuine concern."

THE TREATMENT OF BURNS

MELL B. WELBORN, M.D.*
EVANSVILLE

Burns are compound wounds which are contaminated and, therefore, potentially infected. This being so, the application of the surgical principles of the treatment of the wound within six hours' time after its occurrence with irrigation, excision of devitalized tissue, and non-closure are applicable as in other compound traumatic wounds, such as deep lacerations. The most important consideration in the treatment of any type of burn or compound wound is the prevention of infection, and the principles enumerated were designed for this purpose.

Most patients with extensive burns are seen within a very short time after their occurrence. They should be taken to the operating room, and with or without an anesthetic the wounds must be thoroughly irrigated with sterile water and all blebs and shreds of devitalized tissue excised. This must be done under aseptic conditions, and in no way differs from the management of ordinary traumatic wounds so treated. Following this, the wounds are gently dried and sprinkled with sulfanilamide powder, and the patient is taken to his room and placed on a sterile sheet underneath a light-cradle. The aftercare concerns itself primarily with the prevention of infection, and this is accomplished by endeavoring to keep the open mouth away from the wound and the fingers off it. Sulfanilamide may from time to time be sprinkled on any areas seemingly devoid thereof.

Burns treated by the method herein outlined heal rapidly. The light-cradle maintains warmth and seems to hasten the formation of a thin, light brown scab or eschar of coagulated serum proteins. This may or may not be advantageous, but since it is naturally formed by the body, it seems to represent a part of the healing process. This light scab falls off about the twelfth day, and if the burn is not of full thickness, the tender skin underneath then heals very rapidly.

Thus far in this paper a discussion of the systemic treatment of the burned patient has been avoided in order to clarify the most important principles first, and to avoid confusion. These patients must be treated for shock, and they need hematocrit determinations, plasma transfusions and systemic care, but infection must be prevented if they are to be spared months of illness, disfiguring disability or even death. It is felt that there is a sounder general understanding of the systemic treatment of these lesions than there is of the surgical principles applicable to the local treatment.

The advocates of the tannic acid, and tannic acid silver nitrate treatment for burns, have not emphasized the role which infection plays in the course of a burn, and violate the surgical principle of non-closure of contaminated wounds by applying a coagulating agent which closes them tightly. Severe infection usually occurs underneath the coagulum, or in this closed wound. This infection is manifest by "toxemia," and among other things results in the death of isolated epithelial islands and possibly the destruction of some of the layers of the skin if the burn is not of full thickness. This closed, infected wound is most difficult to drain, and in order to accomplish it an anesthetic must be given and the tough eschar cut or pulled away. This manipulation results in the destruction of additional residual epithelial elements.

Aldrich[1] emphasized the role of infection in burns, and thereby contributed greatly towards a better understanding of their management. The basic principle in the treatment advocated by him seemed to be that of sterilization of the wound by the use of dyes, such as gentian violet. A compound wound cannot be rendered sterile, and since these dyes form a thick crust they seem superior to tannic acid only in that they do not seem to close the wound quite as tightly and the eschar is more easily removed after infection occurs.

Mason[2] pointed out in a recent editorial that the basic principles applicable to traumatic compound wounds are in every way applicable to the treatment of burns, and that they must be observed if success is to be attained. After the burns are cleansed, the local treatment consists of the application of petrolatum gauze and fluffed, bulky dressings in order to provide slight pressure to prevent the escape of serum and provide immobilization. This method has been criticized in that it is time-consuming and, therefore, impractical of wide use. Actually it would appear that its application should be easier than the tannic acid method, and the subsequent management should be infinitely less complicated.

During the twelve-month period ending March 1, 1942, there were fifteen patients with serious burns admitted to the surgical service of the Welborn-Walker Hospital. Two of these patients had an average of 80 per cent of the body surface burned and died within a period of twenty-four hours. A third patient died, but not until the sixtieth day. Six of these patients, with an approximate area of 20 per cent body surface burned, were treated by the method herein outlined. The procedures of

* From the Surgical Service, Welborn-Walker Hospital, Evansville, Indiana.

[1] Aldrich, R. H.: The Role of Infection in Burns with Special Reference to Gentian Violet, *New Eng. J. Med.*, **208**:299, (Feb.) 1933.

[2] Mason, Michael L.: Local Treatment of the Burned Area, Editorial. *Surg., Gynec. and Obst.*, **72**:250, (Feb. 1,) 1941.

application were found to be easy and gave the most satisfactory results of any method. The average hospital stay of these patients was nineteen days. This is an indication of the good results obtained. Not included in this group of six patients are some who had areas of the body, such as the hands, treated with sulfanilamide, and other areas treated with tannic acid. The former areas did well, the latter became infected, and one patient died on his sixtieth day.

SUMMARY

The rationale of the treatment for burns as herein outlined is based on the surgical principles applying to the management of other types of compound wounds. These consist of treatment within a period of at least six hours after the burn: irrigation of the wound, excision of blebs and frayed tissue, asepsis, non-closure, the local application of sulfanilamide powder, and dry heat applied by means of a cradle. The importance of the prevention of infection is stressed. Tannic acid and other coagulating agents are contraindicated.

CONCLUSIONS

The prevention of infection is the most important consideration in the local treatment of burns.

Sulfanilamide powder, not ointment, applied locally on the burned areas seems to aid in the prevention of infection.

Tannic acid and other coagulating agents are contraindicated.

412 S. E. Fourth Street.

RESECTION OF PROSTATE IN YOUNG INDIVIDUALS

(REPORT OF THREE CASES)

P. E. McCOWN, M.D.
INDIANAPOLIS

Obstruction to the free passage of urine from the bladder in the young individual is not infrequently seen by the urologist. Congenital atresia of the urinary meatus or urethra, congenital posterior urethral valves and abnormal enervation, resulting from spina bifida are encountered in infancy.

The condition discussed in this paper is found after puberty. It is an acquired condition and, in my opinion, is the result of chronic inflammation—chronic prostatitis. The writer has encountered an analogous condition in women in which obstruction was caused by chronic inflammation in the urethra and posterior urethral glands. Etiology will be discussed later.

Various degrees of urinary obstruction have been seen in young men. The three cases in this report are selected because urinary retention was complete in two cases and a large amount of residual urine was found in the third case.

CASE REPORTS

Case 1.

G. S.—aged 32, entered the Methodist Hospital on February 9, 1937, because of pain in the region of the perineum and penis, increased by urination; urine frequency; nocturia; polyuria; hematuria; pyuria and fever. He had had polyuria thirst and urine frequency since childhood. Pain, pyuria and hematuria had been present only a few days.

Tenderness was found in both flanks and in lower abdomen. Chest and heart were negative. Blood pressure 140/96-124/80. Spinal fluid was negative. Urine examination showed pyuria and hematuria. P.S.P. output was 25 per cent in two hours; this rose to 33 per cent under treatment. There were sixteen ounces of residual urine.

The cystoscope showed a very large bladder, acutely inflamed and deeply trabeculated. The bladder orifice was contracted by a fibrous ring and small median bar. Rectal palpation revealed no enlargement of the prostate. Examination of upper urinary tract showed bilateral hydronephrosis and hydro-ureters, infected, which were judged to be congenital.

Treatment consisted of catheter drainage, irrigations and urinary antiseptics which reduced temperature to normal. On removal of catheter, fever and pain returned. Resection of bladder neck was done March 9, 1937. Six grams of tissue were removed. Convalescence was good. Patient was dismissed March 17, 1937, with two ounces of residual urine, having been free of fever for one week.

This patient returned to my office March 1, 1942, at which time his urine was clear and pale. There was a residual of twenty-eight ounces in his bladder. There had been no recurrence of fever, hematuria or pyuria. He still had thirst, polyuria and frequency due to low kidney function. A second resection was suggested.

Case 2.

F. S.—aged 34, entered the Methodist Hospital on April 21, 1939, because of complete urinary re-

tention of one week's duration, necessitating catheterization. No history of previous urinary trouble.

Examination disclosed a well-built, muscular young man with a normal sized prostate. His past history showed no serious illness.

Cystoscopic examination showed a fibrous ring and median bar formation with moderate trabeculation of bladder wall. Upper urinary tract was found to be normal on ureteral catheterization. Kidney P.S.P. elimination was 53 per cent, 55 per cent, and 67 per cent.

Six grams of fibrous tissue, containing smooth muscle and a moderate amount of glandular tissue, was removed by the resectoscope on April 27th. Patient left the hospital May 6, 1939, voiding freely, with no residual. This man has had no recurrence. The following biopsy report of this case (by H. M. Banks, M.D., pathologist) is given in full since it is a fair sample of all histological reports in this type of obstruction.

"Histological section through the prostate shows most of the sections to be taken from the median bar, and a predominance of smooth muscle element is noted. However, there are moderate amounts of glandular structures. These follicles are rather ragged in general contour, lined by tall columnar epithelium arranged in patchy irregular draggled-like pattern. Basement membranes are sharply delineated, periacinar tissue is edematous and infiltrated with round cells scantily placed. The stroma shows a considerable amount of small, round cell infiltration, diffusely disseminated. On the areas which present themselves to the lumina of the urethra one finds a considerable amount of ulcerative-like erosion with granulation tissue presenting. This is quite richly vascular; no evidence of any giant cell formation or any coagulative necrosis.

IMPRESSION: Benign hyperplasia of the prostate, degree I. Chronic prostatitis, degree II."

Case 3.

C. M.—aged 33, entered the Methodist Hospital on June 13, 1934, with complete urinary retention, hematuria, pyuria, chills and fever. Had been having difficulty in voiding for ten weeks.

The cystoscope showed an enlargement of the middle prostatic lobe and a moderately trabeculated bladder. Examination per rectum showed that the prostate was slightly enlarged, fairly firm and smooth. P.S.P. elimination was 55 per cent.

Ten grams of prostatic tissue was resected on June 16th. Biopsy report was "Carcinoma of Prostate—Grade IV." Convalescence was smooth. Patient was dismissed June 26, 1934, voiding freely without residual urine. This patient received x-ray therapy to the prostate, returning to the hospital as an out-patient. He died a few months later of metastases.

The rapid demise of this patient confirms my experience with prostatic carcinoma in that this disease is more rapidly fatal in the younger patients. I have in the eighth decade had patients with prostatic carcinoma who have lived four to six years after the obstruction was removed. Autopsy of one patient, aged eighty-nine, showed no metastases in the retroperitoneal glands, although the malignancy was discovered five years before death. I have attributed the increased longevity of older men with carcinoma as being due to inactivity and poor nourishment to the tumor. Since the use of stilbestrol and castration has been found to influence the course of prostatic carcinoma and its metastases, it is possible that there is a difference in the endocrine activity at various age levels.

As to the etiology in this case of carcinoma, chronic irritation and whatever the future reveals as the cause of cancer is the only explanation I am able to advance.

The biopsy reports of tissue removed from non-malignant young men all show a predominance of fibrosis and smooth muscle tissue, and round cell infiltration with scattered prostate gland acini.

Since chronic prostatitis is nearly always found in the tissue of large specimens of prostatic hypertrophy and the malignancies, it is my belief that chronic inflammation is an etiologic factor in all forms of bladder-neck obstruction not the result of disturbed enervation or congenital malformation.

In a recent case of complete urinary retention in a woman thirty-six years of age, the resected tissue was similar to that found in the median bar and fibrous rings of the male, e.g., hypertrophy of fibrous tissue and smooth muscle with occasional infected gland acini.

There was no history of venereal disease in any of the above cases. In fact, chronic non-specific prostatitis is very common and it is probable that not more than one in ten cases of prostatic hypertrophy in elderly men give a record of venereal disease. The endocrine imbalance which has been advanced during the last ten years as the cause of prostatic hypertrophy certainly does not enter into the etiology of this condition in young men. None of these had experienced the so-called "male climacteric." None were impotent before or after operation. I believe, therefore, that chronic low-grade inflammation is the principal cause of this condition in the non-malignant cases.

The writer has resected the bladder neck in a selected group of cases of persistent chronic prostatitis that did not respond to the customery routine of massage, dilatation and instillation. These resected cases have all had fibrosis of the bladder neck, and most of the cases had a hard, smooth gland giving sort of a "rubbery" feel to the touch. In two cases there was complete cure of cystitis and pyuria of several years' standing. In practically all cases there was a softening in the consistency of the gland, permitting easy emptying of the remaining gland follicles by prostatic massage. Resection does not free the remaining follicles of

infection, however, it relieves patients of many disagreeable symptoms, such as pain, dysuria, pyuria and the obstructive symptoms. There is a great reduction in the amount of pus found in the expressed prostatic fluid. Resumption of prostatic massage and the use of sulfa drugs following resection will usually free the gland follicles of the remaining infection within a short time.

It is not my purpose to promote a wave of resection in chronic prostatitis. Certainly the operation should not be recommended until a real effort has been made to effect a cure by routine treatment. The operation is not without danger even in young men. The removal of too much prostatic tissue will result in a slight ejaculation of which the patient will complain. Young men are prone to sexual excitement which will cause hemorrhage following the operation; these are at least annoying, if not dangerous, and may require transfusions. Meticulous postoperative care is, therefore, required during convalescence.

My experience has been that this operation is the means of converting a seemingly incurable case into one that is amenable to treatment.

DR. FRANK LAHEY URGES ACTION

The following editorial is reprinted from the June 27 issue of *The Journal of the American Medical Association:*

"Elsewhere in this issue appears a statement by Mr. Paul V. McNutt, chairman of the War Manpower Commission, under which the Procurement and Assignment Service for Physicians, Dentists and Veterinarians functions relative to the urgent need for physicians for the armed forces at this time. Mr. McNutt recognizes the indispensable character of the physician for both military and civilian needs. He makes clear that eight states—New York, Illinois, California, Pennsylvania, Massachusetts, New Jersey, Michigan and Ohio—must supply most of the physicians needed for the armed forces at this time. Some of the states have already supplied so many physicians in proportion to their total medical population that recruitment in those states is to be discontinued now or in the near future.

"The medical profession cannot be accused of failure to play its part in any way in relationship to the war effort. Every one who is participating in the recruitment of physicians recognizes that there have been what are now called innumerable 'bottle necks' to be cleared away from time to time as the effort has progressed. More than one hundred and thirty thousand physicians have already returned the registration blanks sent out by the National Roster of Scientific and Technical Personnel. These replies have been coded, and punch cards have been made for them. Any physician who has failed to receive an enrolment form from the National Roster should write at once to the National Roster of Scientific and Technical Personnel, in care of War Manpower Commission, 916 G Street Northwest, Washington, D. C., requesting that an enrolment form be sent to him.

"Shortly there will be sent to every physician who indicated that service in the United States Army Medical Department would be his first choice or his second choice a letter as follows:

WAR MANPOWER COMMISSION

Procurement and Assignment Service

Washington

Procurement and Assignment Service for Physicians, Dentists and Veterinarians

Dear Doctor

You have indicated your willingness to serve the Nation in this great emergency. The Procurement and Assignment Service of the War Manpower Commission now calls on you to enter the Service. Please apply at once for a commission. You have been selected from among the available physicians in your community by a process that is believed to be fair and impartial.

Complete and mail the enclosed post cards immediately. The Office of the Surgeon General or his representative will provide the necessary application forms and authorize the time and the place for your physical examination.

Do not take any definite action regarding your practice until you receive specific instructions from the War Department. Each physician who is commissioned is routinely allowed fourteen days to wind up his affairs after receipt of orders from the War Department.

The rapidity of recruitment now in effect makes this communication necessary and requires your full cooperation. Please do not delay.

Sincerely yours,

FRANK H. LAHEY, M.D.

Chairman, Directing Board

Procurement and Assignment Service

Enclosures

No. 92 6/22/42

"With this letter will be enclosed two postal cards, which will secure prompt action in relationship to the receipt of application forms and proper notification of the action taken in the responsible agencies in Washington.

"The needs of the armed forces for physicians are immediate; unquestionably those needs will be met. Physicians who are under 37 years of age and who have been classified by the Selective Service are susceptible to restudy of their situation and reclassification as these needs become more and more urgent. The medical schools, hospitals, public health departments, industrial concerns, in fact every agency utilizing the services of physicians, must cooperate by restudying the men classified as essential, so that only those who are actually essential in the most restricted sense of that word will be retained. All others must be made available as needed for the service of the nation in the armed forces.

"The Procurement and Assignment Service for Physicians, Dentists and Veterinarians was established to aid in the proper assignment of physicians in times like these to the tasks for which they are best fitted. Already this agency has been of immense value in the principles that have been adopted relative to the maintenance of medical education, hospital service and civilian health, as well as the study and evaluation of men for the Army and Navy medical departments. As the needs become more acute and the number of men available less, their task assumes increasing importance. The War Manpower Commission is now the agency under which the Procurement and Assignment Service functions. Through the activities of various subcommittees such problems as maintenance of essential staff members for hospitals, the determination of adequate medical service for the civilian population needs, of adequate personnel for urban, county, state and national health departments and the needs of industry are being given special consideration. The medical profession, as Mr. McNutt has repeatedly emphasized, has in these activities shown the way to scientific study and allocation of manpower in this emergency."

X-RAY EXAMINATION OF TEACHERS AND SCHOOL EMPLOYEES IN SOUTHWESTERN INDIANA

(A Survey of 1158 X-Rays)

PAUL D. CRIMM, M.D.
EVANSVILLE

An x-ray study was made of 1158 teachers and school employees in Southwestern Indiana, including Perry, Spencer and Vanderburgh counties, and a miscellaneous group which included the city of Boonville. X-rays of 655 individuals were reviewed by a chest specialist,* a roentgenologist,† and the author. The remaining 503 x-rays in the series were reviewed by the author.

In Perry County a total of 167 teachers and school employees were examined by x-ray. Fifty-one were negative and 116 positive. In the positive group 92 had healed primary tuberculosis, 4 arrested secondary pulmonary tuberculosis, 19 had both primary and secondary tuberculosis, and 1 bus driver had a far advanced, active secondary tuberculosis. Thirteen of the above had interlobar pleurisy. Eighteen of the 167 had evidence of heart or circulatory pathology. Although no definite diagnosis was made of the latter condition, they were advised to have further examination. (Table I.)

In Spencer County 223 individuals were x-rayed. Ninety-five were negative and 128 positive. Among those positive, 93 had healed primary tuberculosis, 18 arrested secondary tuberculosis, and 17 had both primary and secondary tuberculosis. Fourteen of the positive group had interlobar pleurisy. Nine of the 14 had either calcification or arrested secondary tuberculosis, or both. In this group of 223, a total of 24 had some heart or circulatory damage and were advised to have further examination. (Table I.)

In the city of Evansville, x-rays of 655 teachers and school employees were reviewed. Of this total 362 were negative and 293 positive. Among those positive, 253 had healed primary tuberculosis, 24 arrested secondary pulmonary tuberculosis, 15 had primary and secondary infection, and 1 teacher had active tuberculosis. Twenty-five of the positive group had evidence of pleuritic adhesions. Thirteen of the 25 had either primary or secondary infection, or both. In this group of 655, 14 had evidence of heart or circulatory abnormality and were referred to family physicians for further check-up. (Table I.)

An additional group of 113 teachers and school employees from various counties in Southwestern Indiana were x-rayed. Of these 36 were negative and 77 were positive. Thirty-eight of the positive group had evidence of healed primary tuberculosis, while 26 had evidence of arrested secondary pulmonary tuberculosis, and 13 had both primary and secondary infection. Eleven of the positive group had evidence of pleurisy. Eight of the 11 had either primary or secondary infection, or both. Seven had heart or circulatory damage. (Table I.)

Of the total series (1158), 544, or 47.0 per cent, were negative. (Table II.) In other words, they had no demonstrable evidence of fibrosis, infiltration, calcification, or pleuritic adhesions. Some, no doubt, had lesions which were non-pulmonary or masked. If tuberculin tests had been performed, a certain number of the 544 would probably be positive. However, we are not necessarily interested in whether a teacher or school employee has a positive tuberculin test, but in whether or not the individual has evidence of tuberculosis in the lung tissue itself, active or inactive. Of the 614, or 53.0 per cent, who were positive, 476, or 41.1 per cent, of the total series had healed primary tuberculosis. One hundred and thirty-eight (138), or 12.0 per cent, had secondary tuberculosis. Sixty-

* Gardner C. Johnson, M.D., Evansville.
† Morton Helper, M.D., Evansville.

TABLE I—DETAILED SUMMARY OF 1158 X-RAYS

Groups	*Number X-Rayed*	*Negative*	*Primary TB Healed*	*Primary and Secondary TB Arrested*	*Secondary Tuberculosis*			*Pleurisy and Primary or Secondary TB or Both*	*Heart or Circulatory Abnormalities*
					Arrested	*Active*	*Pleuritic Adhesions*		
City of Evansville	655	362	253	15	12	1	12	13	14
Perry County	167	51	92	19	4	1	0	13	18
Spencer County	223	95	93	17	13	0	5	9	24
Miscellaneous Group	113	36	38	13	23	0	3	8	7
Total	1158	544	476	64	52	2	20	43	63
Percentages		47.0	41.0		Secondary—12.0			Total Positives—53.0	

TABLE II—GENERAL X-RAY SUMMARY OF 1158 SCHOOL EMPLOYEES

Total Number X-rayed		1158
Number Positive—614—53.0 per cent		
Number Negative—544—47.0 per cent		
POSITIVE		
Primary Tuberculosis Healed (not including 64 with Secondary Tuberculosis)		476—41.0 per cent
Secondary Tuberculosis Arrested		
Stage I	101 (including 62 with Primary Tuberculosis)	
Stage II	14 (including 2 with Primary Tuberculosis)	
Stage III	1	
*Pleuritic Adhesions (only)	20	
Secondary Tuberculosis, Active		
Stage II	1	
Stage III	1	
Total Secondary Tuberculosis		138—12.0 per cent
Total Positive		614—53.0 per cent

(A total of 63 in the series had pleuritic adhesions, 43 of whom had evidence of primary or secondary infection, or both.)*

four of the 138 had both primary and secondary tuberculosis, 63 had pleuritic adhesions, and only two, or 0.17 per cent of the total series, were found to have active tuberculosis. Since ninety per cent of most pleural effusions are tuberculous, and since 43 of the 63 who had obsolete pleurisy also had evidence of primary or secondary tuberculosis, the inclusion of those with pleuritic adhesions does not create a large percentage of error. Hence, we have added the entire 63 who had pleurisy to the list of secondary tuberculosis.

In the entire series of 1158, 63, or 5.4 per cent, had evidence of heart or circulatory abnormalities. Six had cervical ribs.

DISCUSSION

In a previous survey[1] of 1,000 individuals in Vanderburgh County, the incidence of infection was found to be 76.7 per cent by the combined use of the tuberculin test and x-ray examination. Fifty-three per cent were discovered by the x-ray and 55.0 per cent by the tuberculin test. Since 23.0 per cent were positive to both x-ray and the tuberculin test in the previous experiment, we must expect some error in this series because the tuberculin test was not employed. Of the two procedures the x-ray is more important in our opinion, for an error on the side of the omitted tuberculin test, with a negative x-ray, permits the teacher to go about his or her business with a sense of security, whereas the positive tuberculin test worries the individual until an x-ray is made.

The Acts of the Indiana General Assembly, 1941, Section 1, Paragraph B, entitled "Physical Examinations of School Employees," reads: "Every Board of Education and School Trustee shall require a physical examination for tuberculosis, including adequate laboratory tests and x-rays, of all such employees of the board or school trustee at least once in three years and shall cause the physical examination to be made within one year from the date this Act becomes operative. Such examinations, tests and x-rays shall be made only by duly licensed doctors of medicine. The cost of such examinations, tests, x-rays, and the providing of diagnostic data shall be borne by the Board of Education."

In mass x-raying and examination, laboratory tests and physical examinations need not be performed until after the x-ray is taken. An adequate x-ray, with proper interpretation, will diminish the cost of routine laboratory tests and physical examinations. In the present series, the average cost of x-raying each school employee was $5.00, a fee set by local roentgenologists. Although it cost approximately $5,790.00 to find two active cases of tuberculosis, it was not only valuable to the two people involved, but it also prevented them from infecting many other individuals. One hundred and thirty-eight were advised that they had evidence of secondary tuberculosis and should be on their guard and report to their family physicians any signs and symptoms which might point to a breakdown of their infection. Considering this information alone, the cost was $42.00 per individual. The educational value of x-raying the entire group at $5.00 each is extremely important, in that it urges each to become "TB conscious." It impresses them that whether they have a primary infection which is healed, or whether the x-ray shows no evidence of primary or secondary infection, they should realize that future prolonged chest symptoms should be investigated by x-ray. Furthermore, if the individual is negative to both tuberculin and x-ray, it does not give him a clean bill of health indefinitely, since three months later he may pick up an initial tuberculous infection. Likewise, it is well to remember that the individual with primary tuberculosis could in three months' time acquire a secondary infection. Nevertheless, the individual with a healed infection may be safer than the individual who is negative to both tuberculin and x-ray, if a previous tuberculous infection grants him some immunity to tuberculosis.

The relative yield of active cases in such work will never be commensurate with money expended.

[1] Crimm, Paul D.; Potts, William L., and Hudson, Gwen S.: Tuberculin Tests and Roentgenograms, A Correlation on 1,000 Adults. *The Am. Rev. of Tubere.*, Vol. XLII, No. 2, (August) 1940.

The whole program, therefore, is one of education as well as case-finding. Of this group only 28 required further tests, such as stereoscopic x-rays, sputum examinations and gastric analyses for tubercle bacilli. These, of course, had physical examinations as a part of their complete examination. This goes to point out that in comparison with a well contrasted x-ray, a physical examination is of little value, because those with secondary pulmonary tuberculosis (12.0 per cent in this series) would be the only ones who might demonstrate physical findings. To be further conservative, less than one per cent of these would show any physical findings, since minimal healed lesions of tuberculosis do not often reveal physical signs. The majority of the 63 who had evidence of heart or circulatory damage are more than likely not to reveal such on physical examination, but would on x-ray or fluoroscopic examination.

SUMMARY

1. A study was made of 1158 x-rays of teachers and school employees in Southwestern Indiana.

2. Six hundred and fourteen (614), or 53.0 per cent, showed evidence of either primary or secondary tuberculosis, or both.

3. Of the 1158, 12.0 per cent, had secondary tuberculosis. Two cases, or 0.17 per cent, were found to have active tuberculosis.

4. In mass chest examinations an x-ray prior to either clinical or laboratory tests reduces the necessity of mass routine laboratory and physical examinations. In this series only 28 of the 1158 required tests other than x-ray.

5. Detailed interpretation and analysis of chest radiograms not only justify the expenditure of money, but also gives school authorities an adequate health picture of their employees.

ABSTRACT: HAILS A. M. A. SESSION AS TRIBUTE TO SPIRIT OF AMERICAN MEDICINE

The annual session of the American Medical Association concluded last week at Atlantic City is hailed in an editorial in the June 20 issue of *The Journal* of the Association as "a triumph in its accomplishments, a tribute to the indomitable spirit of American medicine." *The Journal* says:

"With 8,238 physicians registered, the Atlantic City session exceeded all expectations. Gasoline rationing on the Eastern Seaboard, it seemed, might interfere seriously with the annual session, but fortunately the interest among the medical profession was so great that physicians poured in by every possible means of conveyance. Until 1935, registration in Atlantic City had never exceeded 5,000. In that year it was 8,409, and in 1937 it was 9,764. The registration, therefore, was particularly gratifying.

"The outstanding feature of the 1942 session was the attendance of visitors from Latin America. . . . There were 140 physicians who registered from other American nations. . . .

"The great convention hall in Atlantic City is obviously an attraction for any assemblage, but particularly for one like that of the American Medical Association. All the various scientific sections, the Scientific Exhibit and the Technical Exposition were housed under a single roof.

"The lower floor was occupied by the Scientific Exhibit. Hundreds of exhibitors were constantly in attendance. The booths were magnificent in a blue decorative scheme. At various times some six or eight motion picture theaters were in operation, as well as special assembly halls for lectures and demonstrations on diabetes, heart disease and infantile paralysis. All these features played, in the stage vernacular, to capacity attendance. Again and again one heard the comment that the Scientific Exhibit of the American Medical Association is the greatest postgraduate training course ever assembled anywhere in the world. Our visitors from Latin America expressed their continuous amazement and gratification at the display, and many of them participated in special exhibits on tropical disease, nutritional conditions in Latin American countries and other research projects. The Technical Exposition occupied the entire first floor of the convention hall and played likewise to capacity attendance. One exhibitor said 'I would have been more than gratified with an attendance of four thousand.'

"The House of Delegates in Atlantic City was concerned largely with problems of organization leading to improved functions of the Association, problems related to the war and medical service plans. . . .

"The Woman's Auxiliary had innumerable fine meetings and had developed exceptional programs of interest to workers in that field. The Auxiliary now has more than twenty thousand members, with a large House of Delegates. Its activities spread into many fields. It is proving to be a factor of great importance in promoting public health and American medicine.

"Throughout the week the special qualities of Atlantic City for a session of this type became more and more apparent. All the great hotels were filled to capacity, and the innumerable dining halls and banquet rooms were used to the utmost. Many medical fraternities, clubs, alumni organizations and special societies held their meetings simultaneously with the meeting of the American Medical Association. A special dinner was tendered to the Board of Trustees by the Local Committee on Arrangements, and the Atlantic County Medical Society provided a sumptuous repast for the House of Delegates, at which Mr. Paul V. McNutt was the chief speaker. . . .

"In the midst of this scientific congress the note of war was an ever present overtone. Twice during the week great convoys of ships, accompanied by destroyers and blimps, passed off shore and gave visible assurance that our nation is carrying on. From time to time interceptor planes and bombers flew out over the ocean. At night the boardwalk was dimmed out, yet hundreds of visitors walked or rode in the man propelled chairs over its pleasant paths. So the ninety-third annual session of the American Medical Association passed into history, the eleventh to be held in Atlantic City, the first annual session of World War II, a triumph in its accomplishments, a tribute to the indomitable spirit of American medicine."

Commenting on the foreign guests at the annual session, *The Journal* explains that there were 56 from Canada, 13 from Brazil, 11 from Cuba, 10 from Colombia, 9 from Argentina, 7 from Mexico, 7 from Chile, 5 from Venezuela and smaller numbers from Costa Rica, Peru, San Salvador, Haiti, Uruguay, Bolivia and Paraguay. There were also guests from South Africa, Persia, China, Greece and British Guiana.

In conclusion *The Journal* says that it "here tenders to our inter-American guests the sincere appreciation of the American Medical Association for their cooperation at this time, when transportation made their attendance especially difficult. Their contribution to the scientific programs, to many of the special meetings and occasions, and their congeniality were inspiring."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association
Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis....Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend....Dec. 31, 1944

JULY, 1942

Editorials

"RATIONING DOCTORS"

Such is the heading of an editorial in the *Washington Herald* (Indiana), the opening statement being as follows:

"There is going to have to be a rationing of doctors if catastrophe is going to be averted in many communities." The same newspaper recently carried another editorial along the same lines.

Throughout the state we find the local press quite concerned about the large number of physicians being called into the armed forces. In some communities an acute problem is quite apparent. Much of this is due to the fact that the Indiana "recruiting team" which has covered the state during the past few weeks has been inordinately successful in obtaining enlistments.

However, in several of the larger communities where such enlistments have been in large numbers, the local "M-Day" Committee has functioned so efficiently that local residents should have no fear of a shortage of doctors. In this connection we would suggest that the public be advised that these enlistments are "controlled"; that each man must be cleared by the local committee before he is accepted into the Service. It should be made clear that the whole process is to a very great degree controlled by the medical profession, national, state and local. If this is done much will have been accomplished in allaying the fears of the general public.

American medicine has ever been found equal to any demand made upon it, and in this instance will see to it that the health of the American people will not suffer even though thousands of physicians are called into service.

People must be told that they can do much in conserving medical care, that they must not expect the impossible of the doctors who remain at home. For the most part these "stay-at-homes" are the older men, plus the few of the younger group who are physically unfit for service in the armed forces. The Lake County Medical Society recently sent to the press of that county a rather lengthy comment on this subject, and our observation was that this was widely read throughout the county. The following suggestions were made:

"Avoid night-calls in so far as possible. If a member of the family is ailing through the day, call your doctor; do not wait until late in the night.

"Go to the office of your physician whenever possible rather than have him take the time to make calls at the home.

"Phone your requests for house calls in the morning, either to the home of the physician or to his office. This will enable him to route his calls, thus saving much time.

"If your doctor is called to the Army, choose another physician, but do not wait until an emergency arises before doing this.

"Finally, observe the rules of good health. Try to keep yourself well so you will not need a doctor."

This is wholesome, sensible advice, and if followed would do much to lighten the increasing burden now being placed on Indiana physicians. Plans are made to more properly distribute the medical load in various communities, which, of course, means additional work for those at home. It means longer office hours, less recreation, and in many instances a curtailed or even no vacation. But we are not complaining; the medical profession is all out for the duration. There is but one job before us — a big one — to do our part in the winning of this war, and that we will do!

FEEDING THE ARMY

Not long ago we stepped into the refrigerator of a local butcher shop, a habit we have followed for many years in the selection of various cuts of meat for the home table. We remarked to the butcher that his meats were not up to par; that in the last six months his roasts, loins and lamb cuts had not been up to the standard. His reply was to the effect that the Army gets the choicest of the meats these days; we take what is left. And that is true; letters from the various Army and Navy camps throughout the nation bear this out. We have made many inquiries of those whose sons are in service and in practically every instance have been informed that the "Army boys" say their food is tops. This thing of feeding several million men dispersed over the globe is of itself a prodigious undertaking.

No longer do we hear of "embalmed beef," made

famous during the Spanish-American War, nor do we hear much about the "gold fish" of World War I. Our boys are getting the best of food and are getting all they wish. We are advised, first hand, that "second helpings" are commonplace.

In many cases it is necessary to use the frozen foods, but the frozen foods of today are far different from those of former war times. As a matter of fact, we personally find that certain frozen foods, particularly the vegetable sort, are far superior to the fresh vegetables lying exposed on the counters of our markets.

The menus used in the armed forces are varied to suit many conditions; soldiers in training for service in a certain part of the world must have a diet far different from that furnished other men who are to stay in this country. The feeding of the present army is not a hit-or-miss affair. It is most carefully planned, and in that planning a myriad of problems must be worked out.

The civilian population is becoming army-kitchen minded; that is, they have come to recognize that in the matter of foodstuffs we must be secondary to the men of the Army; and as the war progresses there will be more and more food restrictions for the "at homes." We have heard little or no complaint of this, just as we have heard no complaints from the boys in Service; they come first, which is all right with us.

DOG DAYS

For several years we have commented on this subject, directing attention to the number of cases of rabies throughout the state each year and to the fact that Indiana has a "dog law" that has plenty of teeth in it, but that it rarely is enforced. Our attention is presently called to a bulletin concerning a quarantine order sent out by a group of officials of an Indiana county.

It sets forth a resolution drawn up by the State Veterinarian of Indiana, the Director of the Division of Public Health and the County Health Commissioner, declaring that an emergency exists in that county "because of an outbreak and epidemic of the disease known as rabies." It orders a quarantine of all dogs for a three-months period, beginning June second.

The order is also signed by all the city health officers of the county, together with the sheriff. If signatures have any authority, then this edict should mean business — but will it?

As we have said, Indiana has a good, workable law covering the subject, but in most sections of the state it never has been enforced.

The law makes it imperative that local officers — the sheriff and the city police departments — enforce the law to the letter, stating very clearly that any such officer neglecting or refusing to enforce the law may be fined in any sum up to fifty dollars. And, the law says these officers *shall* kill or impound any dog running at large. "Dogs roaming on the streets unattended by their lawful owners may be killed."

Stray dogs are at all times a nuisance; at times they too often are a menace. We have had plenty of experience with dogs, what with lawn repairs and the replacement of plants that have had much of our attention in the growing. We are a dog lover, have one or two about the place constantly, but they are not allowed to roam the streets.

Physicians do not need be told of the dangers of dog bites; they know all too well of the numerous cases they are called upon to treat, and they know of the time required for the administration of antirabic serum and of the cost entailed. They can do much to disseminate worth-while information to their patients in their daily routine. Most folk will listen to their family physician rather than to suggestions from a police department.

A fair amount of enforcement of the "dog law" now in effect would practically eliminate the danger of rabies within our state.

MARRIAGE LAW TROUBLES

We of Indiana have heard a lot about the circumvention of the State Marriage License Law, of its evasions, and of the part that some money-loving doctors have played in these evasions. Now we are advised that in New York State they are having somewhat the same trouble. According to newspaper reports, Mayor LaGuardia has found it advisable to suspend three officials of the Marriage License Bureau for conniving to defeat the purpose of the law.

These officials are charged with "steering" applicants for marriage licenses to a neighborhood physician; he in turn made phony or no tests or examinations. The Commissioner of Investigation has called upon the Department of Health and the "organized medical profession," to undertake "appropriate educational and disciplinary steps necessary for the enforcement of the Pre-marriage Examination Law."

The New York Mayor might learn a lot about this "racket" by consulting Lake County Society officials; for years this has been a thorn in the flesh of righteous people of that county, and a year or two ago the local society undertook to do something about it. One member was disciplined to the extent of expulsion from the society, but the unsavory, unholy racket still goes on—a county official, a doctor without society membership, and a *Justice of the Peace*, who "turns 'em out like sausages," to use their own expression, profit by it, no end.

But there is coming another session of the In-Indiana General Assembly, and it remains to be seen whether it is possible to enact a law *that is a law!*

WAR NEEDS

Here's the over-all war picture for 1942. Forty-two thousand physicians are needed for the armed services by January first. Twenty-two thousand physicians already are commissioned in the Army and Navy. Twenty thousand more must be commissioned before January first. Forty states owe four thousand men and eight states owe sixteen thousand men.

Each of the forty-eight states have medical officers' recruiting boards, sixteen states are within a hundred of reaching their quota, and the recruiting boards from these states probably will be withdrawn.

A good deal of misconception exists among the profession concerning the Indiana quota. Indiana has not yet enlisted its required number of officers, but it is felt by the Indiana Procurement and Assignment Service that Indiana will be able to fill its quota by the end of the year.

WAR BONDS—AGAIN

THE JOURNAL is in receipt of a letter from the War Bond Sales Division, in Washington, complimenting us on the publicity given the matter in our magazine. We are glad to be of service in this connection, realizing that War Bond sales have much to do with our present successes at the various fronts.

The State of Indiana is doing remarkably well in its response to "Buy War Bonds" appeals, practically every section of the commonwealth oversubscribing its quota. But as the war goes on more and more ready cash is needed and War Bonds afford just that.

Now that "Our Boys" are pretty well distributed over the entire globe we have an additional reason for responding to the appeal to buy and buy and buy. We cannot let them down — they are "over there" fighting our battles and look to those of us at home to give them every support. The most tangible form of support right now is the wherewithall to buy bullets and things—yes, instruments of death if you please; after all this is a "killing" war.

Again we urge the War Bond Habit. Ordinarily we do not advocate the formation of habits, but in this instance we *urge* it. If you have not already formed the Buy War Bond Habit, we suggest that you do so at once. Nothing affords us more personal pleasure than our Monday morning visit to the bank; after a few moments with the Bond clerk we walk out with our head high—we've done our bit for the nonce. That nonce must not last too long, however.

DO YOUR CHILDREN BELONG TO YOU?

(The following article struck our fancy. It is reprinted from the "How to Keep Well" column, by Dr. Irving S. Cutter, of the June 6, 1942, issue of the *Chicago Tribune*. This reminder is, indeed, apropos at this time when the preservation of our home and family is at stake. We must and shall *preserve* that sacred institution!—Editor's Note.)

"May the time never come when we will forget that our children are our very own. The rearing of a family is a privilege as well as a chore. It involves not only the development of strong bodies but loving care when illness strikes and, more important than all, the building of character.

"In these days when most of our affairs are regulated by authority, parents must remember that they themselves are solely responsible for the upbringing of their offspring.

"But they must be sufficiently intelligent and so situated that food, clothing, and shelter can be provided until the under-age members are able to fend for themselves. This is in sharp contrast with the regimentation of youth. Each child is taught to believe that forebears are mere incidents along the pathway of existence.

"Nations that adopt such an attitude look to the oncoming crop of little ones as so many potential soldiers and workers. To them, the state becomes father, mother, brother, and sister—with every move ordered and planned until the young adult shoulders a gun or takes his place at a machine.

"Such a status cannot exist in a free society. The strongest bands of loyalty and devotion exist within the home. Of course, the government has certain responsibilities. It must step in when a pupil wtih diphtheria is allowed to mingle with others in a schoolroom. Furthermore, it can recommend procedures for physical rehabilitation. But we hope we shall never see the day when Johnnie or Susan may be sent to a federal hospital and there subjected to treatment whether father or mother agrees or not.

"So long as the public health program consists in educating the general population to the vital role of good health—the fact that it is a social and economic asset—to that extent the cost is justified. But the more that is done for our sons and daughters by various welfare agencies, the less will they be our own. We should have more faith in American parents, who desire to give their progeny every advantage of education—of physical perfection—leading to economic independence.

"The ideal situation is represented by the community with honest, skilled physicians who evince a real concern for all those who seek their aid. In addition, there are countless clinics where the fee is so moderate as to be negligible. Our laws against kidnaping are stringent. Let us be alert lest officialdom become criminal and destroy our most sacred institution—the family.

"Of course, there are unfit dads. But their number is relatively small. Then it is that the children may be cared for in private homes or institutions. There also are youngsters who are subnormal mentally—incorrigible or unsocial. Provision has been made for all such.

"But because the state is obliged to intervene in a condition fraught with public danger does not mean that your boy and mine will be better off when his formative years are planned and supervised wholly under Section E, of Division Y, of Bureau H."

GROUPING LOCAL PRACTITIONERS —ANOTHER CONSISTENT CHALLENGER

(Reprinted from *The Pennsylvania Medical Journal*, May, 1942.)

"Dr. S. Weir Mitchell said: 'The rate of advance in medicine can be judged by what the country doctor is.'

"We have heard much about the costs of medical care. We will hear more. The subject has been popularized due to political propaganda and due to the many panaceas for scarcity proposed during the last economic depression. Scapegoat hunting has been popular also. The cart has been put before the horse. The public should first be concerned with quality and distribution. There exists a belief that one should begin with the superstructure and expect the foundation, the physicians, somehow to get in under. We would consider first the foundation. The keystone must be the family doctor, as the individual soldier is the keyman in our army of defense. This most authorities concede. Then we, too, should be heard.

"In Colonial times the few physicians and hospitals were in the larger settlements. The population increased and spread. Doctors and hospitals went along. Later the private clinics came. Two causes interfere with giving the best in services to all. The highly trained physician remains in the larger medical centers. Yet over one-half the population and the present trend are rural. The method of rendering service remains the same as in Colonial days, each physician a lone individualist. Yet the complexities and costs of prevention and of diagnosis and treatment steadily increase. Hercin lie the fundamental faults of our system. There is need of something more. Add it and we may find the solution to four unsolved problems:

1. Effective preventive medicine.
2. Local consultations, and with specialists providing needed, continuous postgraduate instruction.
3. Emergency bed-care.
4. A painless method of payment where needed.

"In preventive medicine, we refer to that which applies directly, not to our splendid public health measures. Though not entirely our fault, we practitioners have held too long to the monkish attitude of secluding ourselves in the monastery of private individual practice for cure only. Why must the average citizen continue to be so woefully ignorant of preventive measures? The compulsory insurance plans in operation in some forty countries fail to provide the best in curative care and also fail in preventive care. Professor Armstrong in *The Health Insurance Doctor* states that in England, France, and Denmark there exists a growing conviction in organized medicine that preventive care must become the concern of the indivdual practitioner. The grouped physicians of an average community could and would provide preventive medicine where we fail as individuals.

"Why burden our busy hospitals with diagnostic problems which should be solved locally? The pooled knowledge, experience, and equipment of all the local men, grouped under one roof, would usually meet the need and stimulate the participants.

"Why must ambulatory patients travel repeatedly to the city to consult specialists? We can collect the cases and bring out the specialists at intervals to collaborate with the family doctor. The postgraduate instruction thus provided would be invaluable.

"Why must the home function as a hospital, unless because of inaccessibility and cost and because rural people dread hospitals? A few beds in a local center would care for emergencies and facilitate solving diagnoses. The centers would act as sifters for the hospitals, passing on the more serious cases.

"Once grouped in such centers, the doctors, cooperating with interested laymen, would decide when a group plan of payment is needed based on local conditions, keeping machinery simple and the costs at a minimum.

"True, efforts have been made to solve the question of costs by organized medicine, private agencies and government bureaus. All are insurance plans and all fail to cover the item of paying the physician for all services. We repeat—only local plans keep operating costs at a minimum with premiums within reach of small incomes.

"Go back with us a few years and follow the trend of thought of our leaders. The President's Committee, which made a survey of the costs of medical care, reported:

" 'Community Medical Centers: The Committee's most fundamental, specific proposal is the development of suitable hospitals into comprehensive community medical centers, with branches and medical stations where needed, in which the medical profession and the public participate in the provision of, and payment for, all health and medical care, with the professional aspects of the service under control of the professional personnel.'

"The minority report recognized the advantage of group practice in communities where practically all the physicians can be joined in groups.

"The ten-point program by the House of Delegates of the A.M.A. in 1934 held that any new type of plan must leave the larger share of authority in the hands of the profession. In October, 1934, the American College of Surgeons stressed local experiments. In February, 1935, again the House of Delegates of the A.M.A. emphasized the local solution as opposed to a national plan. The famous platform stressed the local solution. In

November, 1939, Dr. Nathan B. Van Etten, President-Elect of the A.M.A., said: 'A system of medical service should be developed from the periphery toward the center. . . . Let us think of the school district, the township, the county, the state, and the federal government in that order in developing an American system of medicine under control of the American people.' Paul de Kruif in *Health is Wealth* holds that health centers must be built, that they are not only lacking in many cities but 'are almost non-existent in vast rural areas. . . . These hospitals or centers would be run by local physicians. Here would be medical consultants to co-work and advise with the family physicians to establish informally that practice of medicine by groups of specialists which, without doubt, is the medicine of the future.'

"Recently, the proposed federal-built 50-bed hospitals caused hundreds of physicians to write urging clinic-centers instead—a cross-section of the opinions of rural physicians.

"We are not one of those who believe the day of the individual is past. We do firmly believe the time is here when we shall see a pooling of knowledge and means in a community of effort, and not only in medical care. Dr. Alexis Carrel in *Man the Unknown* writes: 'Individuality is doubtless real, but it is much less definite than we believe, and the independence of each individual from the others and from the cosmos is an illusion.' Will we heed the trend of the times?"

LOCAL CLINIC-CENTERS WOULD PROVIDE:

"*In preventive medicine*, (a) co-operation with state and federal health programs, (b) logical locations for state clinics, (c) effective knowledge on preventive medicine endorsed by the local professional group, (d) periodic health examinations for all ages, prenatal to senile, (e) preventive inoculations.

"*In curative medicine*, (a) office space for the local professions, and specialists on the consulting staff and permanent staff as the volume of work warrants, (b) emergency beds, (c) clearing houses for gathering and sorting cases for local hospitals, (d) selection of research problems.

"*Public advantages based on economics:* (a) a uniform fee schedule, (b) an increase in public confidence due to better professional co-operation, (c) magnets to draw out cases now in need of care, (d) a sharing of the burden of free work now on the hospitals, (e) local coordination of all wartime activities concerned with health and emergencies.

"*For the profession:* (a) preservation of the doctor-patient relationship, (b) a systematic set-up under professional control, embracing any rural county, to mesh with the various plans now in operation, filling gaps, and making them more efficient, (c) easy, frequent consultations at reduced cost, thereby stimulating local participants, (d) postgraduate study by association with consulting specialists locally and more convenient absence from practice to associate with them at intervals in the city, (e) stable professional income regardless of the form of payment, (f) reduced individual overhead, (g) rural attraction for the trained men of the city.

"How establish such clinic-centers? If our lawmakers must do something besides finding us collectively guilty as a trade organization, how about providing some good workshops? Rather than trying to devise some broad expensive plan and attempting to fit it like a poultice to the whole country, they might better vote the funds as grants-in-aid, leaving it to the state, county, and community to share the costs. Each center would be fitted to local needs as determined by the local profession and laity consulting together.

"The communities of any average county could finance the creation of such centers as they have the local fire company once they are 'sold' on the necessity by the county medical society. Such a program can be visualized as setting the foundation stones, the family doctors, in place, over which the four corners of our new structure would rise automatically.

"Under our developing defense program, the need grows more apparent. Every worker must produce. The older physicians left in civilian practice must do more work, faster. Our economy may go into a serious tailspin after the war. Then these centers would prove their value still more forcibly. The predictions of H. G. Wells have proven uncannily accurate. In *The Shape of Things to Come* he foresees very lean times for our nation in the nineteen-fifties. It is possible that we may be forced to return to the pioneer custom of making each community a self-contained unit of the state.

"Thomas Mann in *The Coming Victory of Democracy* presents his brief to prove that democracy will win. God grant that he is right. But a democracy may become bankrupt. Then what?

"When the medical history of our times is written, may it not be said of us, like certain nations in contemporary history, that, in our own defense against centralization of power, it was again a case of too little and too late."

SUMMARY

"The majority of our people, in rural areas, are in need of better care, better distributed.

"The local clinic-center provides a sane solution, compromising between our present archaic system and government health insurance.

"The latter is threatened because the many experiments tried stress the matter of costs only. The politician feels that he can 'go us' one better in financing any public service, even medicine.

"With the apparent cheapening of human life by accidents and warfare, we must be more vitally concerned in conserving our human resources.

"We submit that there exists a challenge to organized medicine to advocate and work for such clinic-centers.

"Come what may for nations and forms of government, better medical care, through the family doctor, must and shall carry on."

Editorial Notes

That venereal disease control in the army camp areas is not a chimerical dream is evidenced by the enforcement of the Federal May Act in the Camp Forrest area, in Tennessee. This law not only forbids engaging in prostitution in areas near such camps but provides for the punishment of those who aid or abet prostitution within such areas. Uncle Sam, so it seems, means it when he says this thing must be stopped and when that patriarch "gets his dander up" he does things in a big way.

The press of the Chicago area recently carried a news story concerning the use of the ultraviolet ray to reduce the dangers of respiratory infections in a local nursery. The story appeared to be authentic, carrying the names of the physicians in charge of the experiments, together with the statement that it was quite successful. Our objection to such pronouncements is that too many of the lay public snap up all such stories and immediately proceed to try the thing themselves. We dare say that following the publication of this article there was an increasing demand in Chicago-land for ultraviolet apparatus.

The Indianapolis Better Business Bureau directs attention of all civilians to the ever-increasing number of "gyp" salesmen who go from house to house offering all sorts of wares, usually advising that these gadgets are a part of the Civilian Defense program. An amazing number of articles are listed, such as a special sand for extinguishing incendiary bombs, tags of various sorts for personal identification, the preparing of furnaces for air raids, bootlegging of retreaded tires, and a host of other suggestions designed to get money from gullible folk. The best way to handle such folk is to call the police.

Morris Fishbein, in addressing the American Drug Manufacturers' Association at its recent French Lick meeting, gave some wholesome advice regarding medical enlistments in the armed forces. He stressed the importance of the continuation of the vast amount of research work in the fields of medicine now being done in this country and urged those so engaged not to be in a hurry about enlisting in the armed forces. He said: "The glory of the uniform should not be rated higher than the service that such skilled men can do for their country. There are great numbers of men-chemists, biochemists, pharmacologists and engineers whose contribution to the war effort is far more significant in their present position than it possibly could be in a training camp."

A physician in the "late sixties" came to see what he could do during the present emergency. He said, "I am too old to enlist in the Service, but I still am able to carry on and do my share of practice. I am not *too* busy these days (he is located in a country town not too far from a large industrial center) and I have several hours each day that I might devote to industrial work, such as physical examinations, minor surgical dressings, etc. I want to do something and am wondering just where I will best fit in." Here we have a man who wants to do his bit and is willing to devote several hours each day in "war work." He is in better than average health for his years, has had a long career in medicine and is good for many years to come. Such an offer will not go unnoticed. This man soon will achieve his desire and will be an active part of our great machine — the greatest in the history of the World War.

A lot of folks regularly read Westbrook Pegler. They admire his forthright statement of his personal convictions regardless of whom they may hit. And he says things in a manner unlike that of any other columnists of today. It must have been something he "et" that provoked a recent article on the homely subject of "bread," in which he offers many truths. He qualifies as an expert on this subject by stating that he not only knows about bread but that he is a connoisseur. One comment that interested us greatly was, "Is it that the milling industry, in its zeal to perfect the product, has refined the very life out of flour? I don't know, but I do know that one never breaks bread any more but stretches it until it snaps and that it could as well be rolled or molded into strips and perfumed with licorice or mint and be sold as chewing gum." We agree with Pegler most heartily. Bread of today is not like the bread we knew years ago when it was made from stone-ground wheat flour milled at Wild Cat.

In these days of almost frenzied activity in the production of war materiels the question naturally arises, "Just how many hours per week can one work without physical or mental injury to himself?" We have noted several opinions on this subject, the majority of writers seeming to feel that even fifty hours per week bring about no destructive changes in the physically fit employe. We have had personal interviews with a few such employes, one a machinist who told us that he had worked eight hours per day, seven days per week, for a period of several months. In this case it was elective. He could have had his "day off" but chose to work straight through. He declared that he noted no ill effect from this long period of daily work. Now comes Present-elect Ruggles, of the American Psychiatric Association, with a statement to the effect that "There is no scientific evidence to show that a 40-hour week is better for mental health than a 50-hour week." That may or may not settle the argument!

The National Tuberculosis Association quotes Dr. Kendall Emerson as follows:

"Civilian physicians need feel no chagrin when they see their colleagues in uniform. They can serve the country with the same high patriotism and with more lasting benefit to health if they will solemnly agree to press relentlessly and with reborn ardor the fight along the home front for the conquest of tuberculosis."

Attendance figures at the Indiana state parks show a marked reduction over the same period of last year. Several reasons are assigned for this, among them the tire and gas conservation move and the unusual number of rainy days for this season. However, according to park officials, it is anticipated that the final figures for 1942 will about equal those of the preceding year. Many Hoosiers who in former years have taken long auto trips to various sections of the country will now content themselves with seeing Indiana. And this is a good bet. Too many Hoosiers do not know that the Indiana Conservation Department has built up a state park system that is equal to most any other state. We do not know of any state that offers a wider variety of park territory, ranging from the Dune country of Lake Michigan, down through the "Mounds," on into Brown County, then into the hill country of Southern Indiana.

Surgeon General Parran, of the U. S. Public Health Service, recently gave forth the following statement: "The fact that many doctors are being called into the Service means that the remaining doctors will have to work harder. All our medical facilities must be employed with maximum effectiveness. And no one who knows the history of American Medicine doubts that this will be done. We have had 'private enterprise' in the field of medicine, precisely as we have had it in other fields of endeavor. Under that system every doctor can go as far as his abilities and energies permit. He isn't regimented and stultified, as are doctors where socialized medicine exists; he isn't the pawn of politicians. And here in America medical progress has been nothing short of astounding. A long list of once-dreaded bacterial killers have been brought under control. Such scourges as tuberculosis are being gradually controlled. And we Americans live healthier, longer and happier lives."

Have you made your
reservation for the
Annual Convention
at
French Lick
September 29, 30 and October 1, 1942?

Lowell Nussbaum, writer of a column in the *Indianapolis Times*, (the same chap who intimately discusses such celebrities as Willis Gatch, "Bill" Ferree and the Blond Senator—alias "Blue Eyes") waxes a bit facetious when he writes of the enlistment of Hoosier Medicine in the armed forces. We gleaned the following from a recent column:

> "Getting medical services is going to become quite an accomplishment, one of these days, as more and more of Marion County's 850 physicians accept Army and Navy commissions. Definite figures aren't available yet, but it's believed nearly 200 either have gone already or are to leave shortly. In another couple of months, the armed forces will have all our physically fit physicians 37 and under, and a lot of the older ones, too. Dr. John R. Newcomb, head of the county's medical Procurement and Assignment Service, estimates that the medical ranks of the county may be reduced one-half by the end of the year. That will throw a tremendous load on the doctors who are left. Already many of them are having difficulty taking care of their business. At least one surgeon is so busy that he has to see his patients at the hospital in between performing operations. If the war goes on long enough, it may become unpatriotic to go to a doctor with anything less than a skull fracture."

The personnel problem in connection with the various state institutions has become a grave one, what with many of the employes leaving for posts in the numerous defense plants about the state. Time was when the offices of these institutions were flooded by applications for employment; in fact, it was generally believed that in order to obtain such a position an applicant must be "right," meaning of course that he voted "right" and was a person of some political influence in his community. Now the picture is changed; employes are hard to find and the heads of the institutions are put to it in managing the institutions properly. This is especially true in the generally termed "benevolent institutions," and in particular in the state hospitals for the insane. In an annual report for 1941, the trustees of one such institution say, "The prospects are indeed gloomy for keeping the hospital fully staffed with employes for the next year." In the same connection a superintendent of one of our larger state hospitals recently remarked that not only was the general employment situation a complicated one, but he had the added problem of trying to keep enough medical men to competently staff the hospital, due to enlistments of this branch of the personnel in the armed forces. It seems that proper provision should be made for such emergencies. As it now stands, appropriations for the operation of these places is made biennially by the State Budget Committee and acted upon by the biennial session of the General Assembly. This, of course, complicates matters in no small degree, since much can — and does — happen in a period of two years. The Governor is handicapped in the matter of aid in such cases. He has, of course, the emergency fund at his disposal, but that of itself is not large enough to be of material service. The 1943 session of the legislature should see to it that measures be provided for such contingencies.

In recent years we have been somewhat concerned over the increase in the number of cases of tularemia in Indiana during each "rabbit season." We have not as yet seen the official report for the past season, hence, cannot state whether the disease was as prevalent as in years past. However, in the state of Michigan, according to an article in the June number of *The Journal of the Michigan State Medical Association*, the disease becomes of added importance in that state as the years go by. Cawley reports ten proved cases within a ten-mile radius of the city of Jackson. There were no deaths in this series of cases. In each instance there was a definite history of the patient having handled wild rabbits, and the clinical history was in line with the usual symptoms of this disease.

We've decided to quit talking about vacations for the time being. There is so much to be done and there are so many ways in which vacation money can be used to better advantage — buying War Bonds is the best bet — that we have decided to leave the matter to the individual. Vacations are, of course, a vital thing in the lives of most doctors. If any group needs a surcease from the routine of daily practice, it is the doctors. But in these times the average physician is a busy man. Perhaps if he did get away for a week or two he would "take his work with him" and would after all come home without the rest to which he is entitled. American Medicine has a big job cut out for it in the months to come. There are added burdens such as we have not had for many years, things that must be done and which only the medical profession can do. So our only suggestion would be, take it all in stride; do the best job of which you are capable, but, "take it easy!"

In these "rationing days" one wonders, "what next?" And, we are advised, "we haven't seen nothing yet!" Not that we are complaining; we believe that the folk in official Washington know what it is all about, and even though some of their answers may be disturbing we have faith in the most of them. Transportation becomes more hedged in, and it now appears that except for the most necessary purposes it will be more and more curtailed as the war goes on. Transportation costs have also increased materially, and we are again advised that the tax on railway and bus tickets is to be increased considerably. There is current talk about conventions; one Washington group already has indicated that conventions may be taboo ere the year is ended. But we have no reason to believe that regular medical conventions will be banned since these are so vital to the profession, especially in time of war. So we would suggest that you go right ahead with your plans to attend the annual convention of the Indiana State Medical Association, come next September. Present plans are to hold this meeting at French Lick, and at this time we know of nothing that will bring about a change in the meeting place. Of course, we all will be busy but not too busy to spend a few days at such a meeting. It will be like a good old fashioned "spring tonic" to be there. Tom Taggart advises that his staff will be ready, which means tops in accommodations of every sort. It will, of course, be a war meeting, which is as it should be. There will be a military air about all the goings on, and there will probably be quite a "sprinkling" of Service uniforms present. By all means make every effort to attend this meeting. It will do much to give you that "lift" so necessary in war-time.

LEGIONNAIRES SPONSOR NURSES' TRAINING

On the first Thursday of each month one hundred good fellows who served in the First World War meet as Voiture 510 40/8 on the Banks of White River at Anderson, Indiana. There good fellowship reigns and good food satisfies. Child Welfare is the major objective of this fun-loving organization.

On a special occasion early in 1942 the Cheminos met with our Doctor Voyageurs — Gante, Kopp, Jones, Ploughe, and Collins. The idea was conceived that we might render a great service at this important time by sponsoring girls who desire nurses' training to a three-year Nurses' Training Course. Immediate action was taken and a student from the Veteran's Orphanage was enrolled in a three-year course at St. John's Hospital, Anderson, Indiana.

Wayne Lowe, the Grand Chief de Gare of Indiana, on learning of this worthy step, called a meeting of the State Child Welfare Committee. The result was that the Grand Voiture enrolled another deserving girl in nurses' training. Today twelve of the thirty-three Voitures of Indiana are sponsoring girls in this noble profession.

At a recent visit to our chateau by national officers of The Forty and Eight we were informed that when the national organization meets in September this program will have national recognition and endorsement.

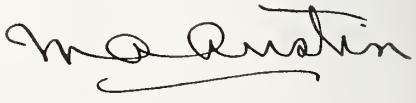
In addition to the definite contribution to society at this critical period of need for more nurses, the organizations afford an opportunity to many deserving girls who could not otherwise avail themselves of the opportunity to become trained in a profession.

Walter Jones,
Chairman of Child Welfare of Voiture 510,
Anderson, Indiana.

President's Page

SUPPOSITORY

Having written such an effective editorial on immunization for the May JOURNAL and an equally illuminating page for brides for the June issue, I am keeping up my average of receiving two responses per page from my readers, so they are entitled to a hot number for July. Now that my term of office is half over I can truly say I shall be glad when the responsibilities of this page are taken over by Doctor McCaskey. Six months more under the strain of inspired insipidy, enduring the frustrations and repressions to conform to regulations, AND I MAY NEVER BE ABLE TO WRITE ANOTHER PAGE FOR THE ASBESTOS ARCHIVES. As Roget would say, one must check, restrain, constrain, restrict, curb, control, suppress and subdue any inclination to add persiflage to any medical page. Were I to judge by the comments received, the grave silence of the vast majority overshadows the favorable reactions of the dozen doctors who have written to me. Brubaker shows a kindly feeling when he writes, "Your stuff don't make sense but it's good reading." Carpenter has his own ideas about editorials when he writes, "Thank God, you haven't given us any vitamins, estrogens or sulphanilamide." B. D. Myers flatters me with his suggestion, "If you can put as much in your future pages as in those you have given us, you should arrange for reprints of the entire series." Charley Dancer is unashamed when he says, "Congratulations for having the guts to use something besides soft soap in your pen." E. O. Asher writes, "The sermon-like purity of your articles makes me doubt that you are writing them"; while Frank Allen pens the following, "The fellow who devises a ways or means of making a pleasure or entertainment out of thinking will put a delightful penthouse on top of every insane asylum." Abe Owen of Attica refers me to a poem of John Keats, "An Ode on a Grecian Urn," which says, "Beauty is truth; truth beauty. That is all ye know on earth and all ye need to know." Wingate M. Johnson, editor of the *North Carolina Medical Journal*, makes a strike in my alley when he writes, "Your remarks are so apt and so well put that we want our North Carolina physicians to have the benefit of them too." All of this is secondary to the fact that looking at me as I write is a red-lipped, black-eyed, curly-haired individual with a red jacket and a red Cossack turban, who has overlooked my frailties and foibles for a long time. And her greatest interest in me has always been expressed in complete silence. She has a part in every office examination that I make. She shows an interest in every consultation and every consultant. She has a smile that cheers me when for any reason I am out of sorts. With her arms outstretched she gives me a welcome as if saying an affectionate "Good morning" when I come into the office, and "Good night" when I leave it. I really think she is intuitively more responsive to my many moods than it is possible for me to think any other person would be. Children run to her at first sight. Men smile at her and women even give her some mild admiration. I can sit and look at her a few minutes and ere I know it my mind has been cleared of the worries of war; I have forgotten the distress of disease, the perils of pestilence, the fears of my failures, and the tragedy of Father Time waiting at so many places with his scythe. Her feet may be too large and her legs too slender, but one ignores all her defects when they see the twinkle in her eyes. She makes me thankful for all the many things I have been given to be thankful for. She reminds me of the most radiantly beautiful face I have ever seen, the face of a girl whose body was hopelessly, helplessly paralyzed. But this paragon of virtue which I possess came from a strange place down on Royal Street in Old New Orleans. She is a little wooden doll that dangles and dances from a rubber strand as she sways and swings from my desk lamp, where she is a constant reminder of a bit of grave philosophy that has helped me carry my own burdens when otherwise I might have fallen under their weight. This philosophy is but a single sentence which says, "NO MAN SHOULD TAKE HIMSELF TOO DAMN SERIOUSLY." Those who do should read Robert Burns' "HOLY WILLIE'S PRAYER."



A SUMMARY OF THE ACTIVITIES OF THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION AT ITS MEETING IN ATLANTIC CITY, JUNE 8-11, 1942

DON F. CAMERON, M.D.
FORT WAYNE

The House of Delegates was called to order at 10:00 A.M., June 8, by the Speaker, Dr. H. H. Shoulders, of Tennessee. Evidence of our being at war was everywhere apparent. Our meeting place was the American Room of the Hotel Traymore, which was well decorated with flags of the United Nations. Quite a number of the officers and members of the House were in uniforms of the armed forces of our country, our President-elect, Fred Rankin, being a Colonel in the Army Medical Corps.

ADDRESSES REFLECT WAR RESPONSIBILITIES

The addresses of the President, Frank Lahey, of the President-elect, and of the Speaker of the House all reflected our intimate connection with and the necessity for our all-out aid for total war preparation. These ideas were twice again forcibly presented in addresses by Paul V. McNutt, the Federal Administrator of the Procurement and Assignment Service. In brief, the House was told to carry this message back home:

1. That the Medical profession should be proud of the fact that its organization alone, of all national organizations, was entrusted with the duty of selecting from its own membership those required for service with the armed forces of the government as well as designating those required for civilian service.

2. That the need for more doctors at this time is most urgent, that at least five thousand more must be found by July 1, 1942, and that by the end of this year at least two-thirds of all doctors thirty-six years of age or under must expect to be in military service.

3. That we must not fail in this obligation.

It was a great satisfaction to note the real and unmistakable harmony and mutual confidence shown between our President and President-elect and Mr. McNutt, who are all working together in Washington.

In concluding these notes on our military relations, it is recorded with great satisfaction that Doctor Rankin especially, and many others in the House, on several occasions during the meeting emphasized the necessity of our preparing plans now to protect the rights of those doctors who will soon, we hope, be returning to civilian practice after the war. It was considered our special duty to welcome back and protect the younger doctors who otherwise by remaining on the government payroll too long might drift into or accept too readily a post-war extension of the encroachment of the government into the practice of medicine.

In addition to the extra work arising from our war effort, the House was kept busy in its routine duties. Reports of the various councils were reviewed, especially the extensive one of the Board of Trustees which is charged with the direction of all the business activities of the Association, its publications, special bureaus and grants. Doctor Sensenich has been an active member of the Board of Trustees during the past five years.

One of the difficult and responsible duties of the House is to choose from a number of eminent American doctors the one to receive the Distinguished Service Award and its gold medal. Dr. Ludwig Hektoen of Chicago was selected for this honor; Dr. George W. Crile was a close second choice.

Almost all proposals requiring action by the House are first sent to special committees for thorough study and report, with suitable recommendations or modifications—a very time-consuming procedure as a rule. Of the Indiana delegates, Dr. Crockett served on the Reference Committee on Hygiene and Public Health, and the author of these notes served on the Committee on Legislation and Public Relations.

PROPOSALS AND RESOLUTIONS ADOPTED

Among the number of proposals and resolutions approved, the following are perhaps of greatest general interest:

1. To establish standards for approved schools for Medical Record Librarians and Medical Technicians.

2. Endorsed emphatically the activities of the National Physicians' Committee.

3. Resolved that it was entirely discreditable for any doctor to furnish to a prostitute any certificate of freedom from a venereal disease.

4. Endorsed the giving of professional care by physicians in lieu of cash in fulfilling medical care insurance obligations of approved organizations.

5. Disapproved at this time the recommendation of women physicians for commissions in the Army and Navy. This action was taken on advice of high-ranking commissioned officers of the Army and Navy serving on the Reference Committee.

6. Advocated proper action to eliminate, if possible, the requirement which now makes necessary certification of personal checks in payment of annual narcotic licenses, in view of the fact that personal income tax payments by personal checks is permitted.

7. Disapproved suspension of dues of Fellows of the American Medical Association during war service, inasmuch as a Fellow's dues are in payment of subscription to the Journal.

8. Approved sending a "thank you" note to the major broadcasting companies for their favorable cooperation with the American Medical Association the past year.

9. Recognized that in some new or rapidly growing industrial cities it will be necessary to have an increased number of doctors stationed, whether it be voluntary or involuntary on their part.

10. Approved an attempt to correct the situation which now exists whereby a physician's estate is, the year of his death, taxed on a basis of not only the total cash receipts but in addition a fair valuation of all accounts receivable acquired during his life, thus adding a considerable tax burden.

11. Refused to increase the membership of the Board of Trustees from nine to eleven. This had been urged especially by some delegates from large areas of the United States who had no Trustee from their section. However, it was thought that proper representation is provided already by the apportionment of delegates, and that Trustees should be selected on the basis of their ability and availability in conducting the affairs of the Association.

For the ninth time in the nine years this delegate has served, he listened again to the radiologists and pathologists requesting special action of the House of Delegates to prevent hospitals and corporations from hiring them at such remuneration that the employers make a large profit by virtue of this contract. The author humbly suggests to these specialists, living in cities where they really are imposed upon, that they might build, equip and operate their own hospitals, then the profit, if any, accruing from their operation would probably not cause so much complaint. To keep the record straight, the author is glad to state that this time no representatives from Indiana appeared for the objectors.

ASSOCIATION'S AID TO WAR PROGRAM

The House of Delegates noted with approval the all-out aid which our Association is rendering the Government in its war preparations. The Association does this gladly and with great financial cost to itself and with still greater demands on its officers and personnel. Dr. Olin West stated that scarcely a day passes that he or the Association is not called on at least once by some representative of the Government to render some special service. At the same time many members of this House noted the great contrast between the Government's patently appeasing attitude toward obstructing elements in labor organizations and its exacting and demanding and even prosecuting attitude toward our Association, which really is rendering a voluntary and necessary all-out aid in this emergency.

A. M. A. OFFICERS FOR 1942-1943.

For the ensuing year the following officers were elected: James E. Paullin of Atlanta, Georgia, President-elect; W. J. Carrington of Atlantic City, Vice-president. Olin West was re-elected Secretary and will begin his twenty-first year in this office. He was given a spontaneous and unanimous ovation. Dr. R. L. Sensenich, of South Bend, was re-elected to the Board of Trustees to serve another term of five years. Dr. E. M. Pallette, of Los Angeles, was elected a Trustee for his first term. Dr. H. H. Shoulders and Dr. Roy Fouts were again elected Speaker and Vice-speaker, respectively.

FUTURE MEETINGS

The annual meeting for next year, unless changed, will be held in San Francisco, the following year in St. Louis, and in New York City in 1945.

DELEGATES TO A. M. A.

Indiana's four delegates were George Dillinger, F. S. Crockett, Homer Hamer and Don F. Cameron. They were present at all sessions of the House and took an active part in its work.

INDIANA PHYSICIANS WHO REGISTERED AT A. M. A. MEETING IN ATLANTIC CITY, JUNE 8-12, 1942

Arbogast, J. L., Lafayette
Bach, Amil C., Indianapolis
Beatty, Norman M., Indianapolis
Beeler, Raymond C., Indianapolis
Bishop, Charles Allan, South Bend
Blackburn, Erwin, South Bend
Bulson, Eugene L., Fort Wayne
Bowers, J. W., Fort Wayne
Browning, J. S., Indianapolis
Burk, James M., Decatur
Cameron, Don F., Fort Wayne
Cartwright, Emor L., Fort Wayne
Casey, Stanley M., Huntington
Cassady, J. Vernal, South Bend
Chen, K. K., Indianapolis
Cook, George M., Hammond
Cooper, Harry L., South Bend
Culbertson, Clyde G., Indianapolis
Cullen, Paul K., Indianapolis
Dalton, John Eric, Indianapolis
Davis, Fenimore E., Fort Harrison
Day, Clark W., Indianapolis
Dillinger, George R., French Lick
Duemling, Arnold H., Fort Wayne
Duggan, James A., South Bend
Eaton, Marion J., Lafayette
Eckhart, G. G., Marion
Eisaman, Jack L., Bluffton
Faltin, Ladislaus, South Bend
Fish, C. M., South Bend
Gaddy, Euclid T., Indianapolis
Giordano, Alfred S., South Bend
Glock, H. E., Fort Wayne
Green, George F., South Bend
Grillo, Donald, South Bend
Gromair, H. C., Hammond
Hamer, H. G., Indianapolis
Hedrick, Robert M., Gary
Hepner, H. S., Bloomington
Herzer, C. C., Evansville
Hines, Don Carlos, Indianapolis
Hippensteel, Russell, Indianapolis
Holloway, W. A., Logansport
Hull, Arthur W., Elkhart
Kamp, Maurice, New Albany
Keenan, Reid L., Indianapolis
Kempf, Gerald F., Indianapolis
Kraft, Bennett, Indianapolis
Liebermann, Arnold, Gary
Lingeman, Byron N., Crawfordsville
Long, P. L., Anderson
Ferguson, Arthur N., Fort Wayne

McCaskey, Carl Heber, Indianapolis
McClain, Marvin L., Scottsburg
McDonald, V. G., Anderson
Mettel, Howard B., Indianapolis
Miller, S. T., Elkhart
Montgomery, Lall G., Muncie
Moore, Robert M., Indianapolis
Nafe, Cleon A., Indianapolis
Nay, Ernest O., Terre Haute
O'Rourke, Carroll, Fort Wayne
Owens, Thomas R., Muncie
Pace, Jerome V., New Albany
Page, Irvine H., Indianapolis
Pearson, Lyman R., Indianapolis
Peck, Franklin B., Indianapolis
Petranoff, T. V., Indianapolis
Ratcliffe, A. W., Evansville
Rhamy, B. W., Fort Wayne
Rice, Raymond M., Indianapolis
Ricketts, J. W., Indianapolis
Ritchey, J. O., Indianapolis
Rodriguez, Juan, Fort Wayne
Rosenak, Bernard D., Indianapolis
Rosenheimer, George M., South Bend
Row, Perrie Quentin, Hammond
Sensenich, R. L., South Bend
Shattuck, John C., Brazil
Stanton, Harmon L., Evansville
Stimson, Harry R., Gary
Taylor, W. R., Richmond
Thornton, H. C., Indianapolis
Tindall, W. R., Shelbyville
Weigand, C. G., Indianapolis
Whallon, Arthur J., Richmond
Wheeler, Homer H., Indianapolis
Whitlock, Merle E., Mishawaka
Wilder, Gordon B., Anderson
Wilson, J. L., South Bend

CONVENTION NOTES

Hoosier Doctors Get Taste of War—Nightly dimouts along the world-famous boardwalk, which is patrolled by auxiliary civilian defense police, and oil-streaked ocean waters from tankers sunk by submarines gave the ninety-two Indiana physicians who attended the ninety-third annual session of the A. M. A. a more intimate touch than most inlanders have yet had of World War II. While freighter convoys with planes and blimps hovering overhead could be seen occasionally from the beaches, conferences, scientific discussions and meetings of the House of Delegates took on a war angle, and the war efforts of Indiana physicians have been frequently and favorably mentioned both formally and informally.

* * *

Hoosiers Active in House of Delegates—Dr. Roscoe L. Sensenich, South Bend, was re-elected unanimously to serve a second term as a member of the Board of Trustees; Dr. Don F. Cameron, Ft. Wayne, served on the important Committee of Legislation and Public Relations; while Dr. F. S. Crockett, Lafayette, was a member of the Hygiene and Public Health Committee. Dr. Hamer was on the Election Committee, while Dr. George Dillinger, French Lick, the fourth regular delegate, and Dr. Norman Beatty, Indianapolis, alternate delegate, completed the official Indiana delegation. Dr. Carl McCaskey, president-elect of the Indiana State Medical Association, and Dr. Cleon A. Nafe, chairman of the Executive Committee of the state organization, were also present.

* * *

Indiana Physicians on Program—Five Indiana physicians took part in the scientific program. Dr. Irvine H. Page, Indianapolis, spoke on "Studies in Hypertension." Dr. K. K. Chen and Dr. John E. Dalton, both of Indianapolis, discussed papers; and Dr. Joseph H. Tiffin, Lafayette, and Dr. Hedwig S. Kuhn, Hammond, read papers.

* * *

Former Indiana Representatives—A further Indiana angle was given the meeting by the talks of Paul V. McNutt, administrator of the Manpower Mobilization Board, and Major General Lewis B. Hershey, Angola, director of the Selective Service System.

* * *

Scientific Exhibit—Among the Indiana firms having commercial exhibits were: Dupuy Manufacturing Company and Zemmer Manufacturing Company, Warsaw; Eli Lilly & Company, Indianapolis; Mead Johnson & Company, Evansville; Scientific Sugars Company, Columbus, and Sun-Rayed Company, Frankfort.

THE MATTER OF GRADE

Every physician in practice enters the service as a commissioned officer, a privilege the members of no other profession enjoy. It ill becomes physicians to stand out against accepting a commission because it is not as high as he thinks he should have.

In 1936 there were two thousand seven hundred captains in the United States Army, some of them on the rolls for twenty years, awaiting promotion. It would seem rather absurd that men should come in off the street without military training and expect to outrank experienced military experts.

There is something more to grade than professional qualification. With a grade goes certain military responsibilities and without military qualification there is resultant embarrassment both to the individual and the Army. Moreover, the recruiting board acts under definite and specific criteria laid down by the surgeon general: it does not have the right to exercise the prerogative of forwarding applications to the surgeon general's office and violate orders as to an alternative. Little consideration can therefore be given to such untenable contentions.

C. R. Bird, M.D., *State Chairman*,
Procurement and Assignment Service.

REPORT OF MATERNITY HOMES AND HOSPITALS IN INDIANA* JULY 1, 1940, TO JUNE 30, 1941

R. E. JEWETT, M.D.
INDIANAPOLIS

In accordance with acts of the Indiana General Assembly, dating back to 1909, all hospitals maintaining a maternity service must be approved and licensed by the state each year. The purpose of this statute is to insure a uniformly high standard of care for mothers and children in our hospitals. The authority for licensure is vested in the Indiana State Department of Public Welfare, and it is administered by the Children's Division. It is also required that hospitals keep adequate records and submit a monthly report regarding the maternity services. Through the cooperation of the Children's Division, and the Division of Statistics, of State Department of Public Welfare, the reports received for the fiscal year ending June 30, 1941, were tabulated and made available for study.

There are now 127 hospitals in Indiana operating maternity services, and reports from 121 were available for this study. Reports from the remaining six were either incomplete or maternity services were not licensed during the period covered by this study. The services not reported were, for the most part, so small as not to affect the reliability of findings in this study.

Table I presents essential data from the reports of each of the hospitals. Considering the totals, hospital births were 54 per cent of the estimated total for the state (based on a three year average). Maternal deaths in the hospitals were 36 per cent of the estimated total for the state. Infant deaths were an estimated 27 per cent of all infant deaths. Stillbirths were an estimated 63 per cent of the total for the state, and they made up 2.5 per cent of all births occurring in the hospitals. Two per cent of all infants were born to unmarried mothers. The completeness of reports on maternal deaths is open to question. It is possible that hospitals reported only the deaths of mothers delivered on the premises, and that they did not include mothers delivered in the home and later brought to the hospital. Likewise, the number of infant deaths occurring in hospitals seems small, but in this case it must be kept in mind that many deaths may occur in hospitals which are not licensed as maternity hospitals and, therefore, are not reporting. Also, it is possible that there are fewer deaths among infants delivered in the hospital than among infants delivered at home.

A total of 1,149 infants, or 3.3 per cent, were deliveries by cesarian section. Other operative deliveries total 6,120, comprising 17.6 per cent of all hospital deliveries.

A comparison of numbers and rates of deaths, stillbirths, and operative deliveries was made (Table II) in order to bring out differences between hospitals having limited, medium and large maternity services. An average of deaths and stillbirths based on reports for 1939, 1940 and 1941 for the entire state was also included for comparison. All rates were tested for reliability and differences were proved to be significant.

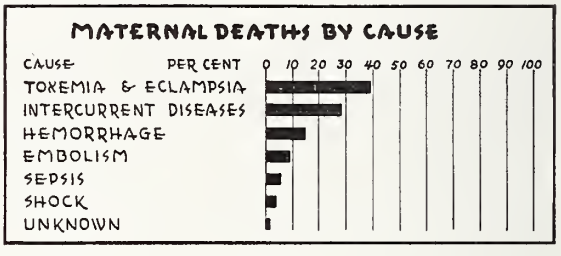


Chart I

Maternal and infant death rates appear to be significantly lower in hospitals than obtains for the state as a whole, while stillbirths are more frequent in the hospitals. Maternal and infant death rates are somewhat lower in the larger hospitals. Cesarian sections are more frequently performed in the medium-sized hospitals, and other operative deliveries are commonest in the large hospitals.

Maternal deaths occurring in the hospitals were studied for causes (Chart I). Intercurrent disease complicating pregnancy was a common cause of death, 28 per cent. Three of these were pneumonia and two were heart disease. The remainder were single causes, which include such reported diagnoses as tuberculosis, diabetes, and erythema multiforme.

Natal and prenatal causes of maternal deaths, or causes directly associated with the pregnancy, appear most frequently—71 per cent. Deaths from toxemia and eclampsia were the most common of all causes—39 per cent. Puerperal sepsis caused death in only 3 per cent of the cases, a gratifyingly low figure, since sepsis causes an average of 42 per cent of maternal deaths in the United States as a whole. Particular notice must be taken of the deaths accredited to postpartum embolism—9 per cent, a cause of death which should be considered in planning postpartum management.

Natal and prenatal causes of infant deaths (Chart II) were the most common—74 per cent. Prematurity, as the most common cause of infant death, requires special attention. There were 1,223 infants born prematurely—3.6 per cent of all live births in the hospitals; and of these 332, or 26 per cent, failed to survive. It would seem that much

* This study was prepared for the State Department of Public Welfare and the State Board of Health by R. E. Jewett, M.D., assistant chief of Bureau of Maternal and Child Health, of the State Board of Health.

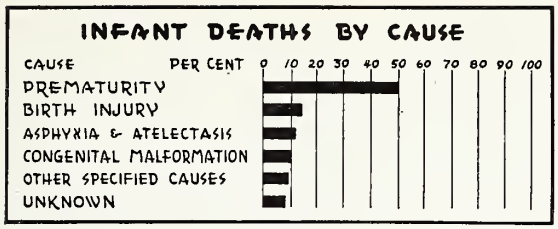


Chart 2

remains to be done to prevent the occurrence of premature birth, and much still could be done to provide for better facilities and better care for the premature infant.

SUMMARY AND CONCLUSIONS

Reports for one year of maternity services in hospitals licensed by the State Department of Public Welfare were analyzed.

The reports in a few instances seem to be incomplete, indicating a need for better reporting.

Maternal and infant mortality rates were lower in hospitals than for the state as a whole.

Maternal and infant death and stillbirth rates were significantly lower in the larger hospitals.

Toxemia with eclampsia was the most frequent cause of maternal death.

Puerperal sepsis was infrequent as a cause of maternal death.

Postpartum embolism appeared to be an important cause of death, and further study is indicated.

Prematurity was the major cause of infant death, indicating the need for better prenatal care of mothers, and better facilities for care of the newborn premature infant.

TABLE I

MATERNAL AND INFANT MORTALITY, STILLBIRTHS, AND OPERATIVE DELIVERIES, BY HOSPITALS IN INDIANA JULY 1, 1940 TO JUNE 30, 1941

Hospital	*Location*	*Live Births*	*Maternal Deaths*	*Infant Deaths*	*Still-births*	*Cesarian Sections*	*Other Operative Deliveries*
Total — All Hospitals		33531	65	662	664	1149	6120
Adams Co. Memorial	Decatur	206	.....	3	4	3	.....
Ball Memorial	Muncie	962	.....	26	20	19	567
Bonwart Maternity Home	Francesville	19	.....	1	1	.....	.....
Bartholomew County	Columbus	235	.....	9	7	17	33
Beechwood	Tipton	76	.....	2	2	.....	.....
Bicknell Nursing Home	Bicknell	40	.....	.....	.....	.....	.....
Blackford County	Hartford City	181	.....	2	5	3	.....
Bloomington	Bloomington	130	1	3	4	17	22
Cameron Hospitals, Inc	Angola	65	1	3	5	3	.....
Carveals Private Hospital	Winamac	17	.....	.....	.....	.....	.....
Caylor-Nichol	Bluffton	78	.....	2	.....	1	43
Cass County Hospital	Logansport	254	.....	3	6	23	73
Christian Home	Evansville	24	1	.....	1	3	3
Citizen's Nursing Center	Anderson	142	1	1	3	2	1
City	Rushville	98	.....	5	3	2	60
Clark	Paoli	54	.....	.....	1	.....	.....
Clark County Memorial	Jeffersonville	184	.....	9	7	1	14
Clay County	Brazil	151	.....	3	6	6	.....
Clinic	Michigan City	78	.....	.....	.....	2	.....
Clinton County Hospital	Frankfort	231	.....	4	.....	7	1
Coleman	Indianapolis	1055	7	12	30	46	747
Convalescent	Indianapolis	2	.....	.....	.....	.....	.....
Culver Hospital	Crawfordsville	295	.....	8	4	25	28
Daviess County	Washington	265	.....	9	.....	20	28
Deaconess Hospital	Evansville	697	7	25	28	36	210
Decatur County Memorial	Greensburg	106	.....	1	7	15	4
Decker	Elkhart	1	.....	.....	.....	.....	.....
Dillinger	French Lick	17	.....	.....	.....	.....	.....
Dr. Bonnel M. Sander	Auburn	70	.....	1	1	1	.....
Dr. Reed's	Culver	12	.....	.....	.....	.....	.....
Dubach	Berne	15	.....	.....	.....	.....	.....
Dukes—Miami County	Peru	234	.....	7	8	6	62
Dunn Memorial	Bedford	179	1	9	3	5	.....
Elkhart General	Elkhart	538	.....	13	14	20	102
Emergency	Tipton	84	.....	.....	2	1	.....
Epworth	South Bend	1035	1	17	26	48	311
Fairview	LaPorte	133	.....	3	2	8	39
Fayette Memorial	Connersville	213	.....	9	6	4	65
Florence Crittenden Home	Terre Haute	14	.....	1	2	.....	.....
Freeman Greene County	Linton	222	2	5	6	21	65
Gibson General Hospital	Princeton	113	1	.....	4	3	10
Good Samaritan	Vincennes	267	.....	2	9	20	.....
Goshen Hospital	Goshen	375	.....	7	9	9	19
Halleck Maternity	Pulaski	16	.....	.....	1	.....	.....
Hamilton County Hospital	Noblesville	233	.....	7	3	2	.....
Henry County	New Castle	317	.....	8	10	14	61
Holy Family	LaPorte	447	.....	13	8	15	118

TABLE I—(Continued)

Hospital	Location	Live Births	Maternal Deaths	Infant Deaths	Still-births	Cesarian Sections	Other Operative Deliveries
Hoover's Sanitarium	Terre Haute	1					
Hoppes Lying-In Clinic	Anderson	162	1	3	17		5
Huntington County	Huntington	205	1		2	5	5
Indianapolis City	Indianapolis	918	5	24	34	12	131
Jackson County, Schneck Memorial	Seymour	167		4	1	4	4
Jasper County	Rensselaer	265		4	5	8	
Kelley	Argos	26		3	1		3
Kelsey	Kewanna	1					
Kennedy Nursing Home	Flora	15					
Lafayette Home	Lafayette	458	1	8	10	29	81
Lakeside Hospital	Kendallville	153	1	3	3	20	27
Laubscher Highland	Evansville	11					
Lincoln	Gary	56		1	2	1	
Linville Memorial	Columbia City	44			3		
Luckey Hospital	Wolf Lake	26			1	1	
Lutheran	Fort Wayne	713		16	18	32	278
McClain-Hill Clinic	Scottsburg	80	1	1	3		
McDonald	Warsaw	206			3	7	1
Machledt	Whiteland	5					2
Margaret Mary	Batesville	165		6	10	4	10
Marion General Hospital	Marion	359	2	10	42	11	49
Maris	Williamsport	58		5		2	1
Martha Hossman	Berne	5					
Mary Sherman	Sullivan	130		6	5	2	9
Medical Center	Fort Wayne	183		1	2	2	19
Mercy	Elwood	338	1	1	9	11	42
Methodist	Fort Wayne	277		3	8	5	38
Methodist	Gary	899	1	18	25	10	150
Methodist	Indianapolis	1973	3	17	41	71	655
Miller	Winslow	19		2	1		
Morgan County Hospital	Martinsville	71		1	5		4
Murphy Medical Center	Warsaw	86		4	4	12	10
Napper	Scottsburg	37		1			
Overpeck Clinic	Alexandria	57				3	1
Parkview	Plymouth	234	1	4	7	15	13
Parkview	Tell City	8					
Porter Memorial	Valparaiso	297	1	7	9		4
Putnam County	Greencastle	147	1	1	2	7	6
Randolph County	Winchester	223		1	6	9	
Reid Memorial	Richmond	589	2	10	16	23	81
Sacred Heart	Garrett	74		3	2	13	
St. Anthony	LaPorte	394	2	11	12	5	72
St. Anthony's	Terre Haute	427		14	16	8	99
St. Edwards	New Albany	388		3	14	19	
St. Elizabeth	Lafayette	627		16	6	20	97
St. Elizabeth Home	Indianapolis	29	1	3			
St. Francis	Beech Grove	1020	2	7	14	15	74
St. John	Gary	36		2			1
St. John's General Hospital	Anderson	611		12	12	35	108
St. Joseph	Logansport	153	3	2	6	5	32
St. Joseph Memorial	Kokomo	420		9	9	8	62
St. Joseph's	Fort Wayne	887		19	26	10	263
St. Joseph's	Mishawaka	630	2	12	17	9	115
St. Joseph's	South Bend	723	1	13	14	31	192
St. Margaret	Hammond	1515	3	38	35	27	156
St. Marys	Evansville	470		5	7	23	59
St. Mary's Mercy	Gary	1614		30	41	22	228
St. Vincent's	Indianapolis	1392	3	20	24	32	
Sanders General	Auburn	25		2	1	2	
Stark	Huntingburg	25		2			3
Suemma Coleman Home	Indianapolis	53		1	1	1	
The Clinic	New Castle	104		2	2	2	19
The King's Daughter's	Madison	104		2		30	31
Union	Terre Haute	508		9	3	30	47
Union City	Union City	72	1		2	2	
Wabash County	Wabash	244		5	10	7	44
Washington Clinic	Washington	14		1			
Welborn-Walker	Evansville	244	1	7	14	24	72
Wells County	Bluffton	145		2	4	3	23
Whitlatch Clinic	Milan	81		3		2	6
Witham Memorial	Lebanon	265		1	5	4	
W. S. Major	Shelbyville	172		3	2	5	
Woodlawn	Rochester	65		5	3	9	
Vermillion County	Clinton	172	1		10	12	2

TABLE II

MORTALITY, STILLBIRTHS, AND OPERATIVE DELIVERIES IN THE STATE, AND ACCORDING TO THE SIZE OF THE HOSPITAL*

Hospitals Having Stated Number of	Number of	Maternal Deaths		Infant Deaths		Stillbirths		Cesarian Section		Other Operative Deliveries	
Births per year	Births	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Totals — All Hospitals	33,531	65	1.9	662	19.7	864	25.7	1149	34.2	6120	182.7
Under 200 (69 Hospitals)	5,135	16	3.1	121	23.5	153	29.7	217	14.2	414	80.6
200-499 (32 Hospitals)	9,508	12	1.3	187	19.6	268	28.1	384	40.3	1194	125.5
Over 500 (20 Hospitals)	18,888	37	1.9	354	18.7	444	23.5	548	29.0	4512	238.8
3 Year Average for the Entire State	61,982	182	2.9	2,495	40.2	1370	22.1	.....	.....	.....	.....

* *For purposes of comparison, all rates are the number per 1,000 live births.*

INFORMATION CONCERNING "IRON LUNGS" LOCATED IN INDIANA

(Editor's Note—The following information has been compiled by The National Foundation for Infantile Paralysis and gives the location of adult cabinet type respirators located in Indiana.)

"The list below of adult cabinet type respirators or 'Iron Lungs' has been compiled from records available April 1, 1942. It contains only those respirators which have been approved by the Council on Physical Therapy of the American Medical Association. These standard cabinet-type respirators are not to be confused with other machines such as chest-type respirators, resuscitators, inhalators or aspirators.

"The National Foundation hopes that the list will prove helpful in any emergency and in epidemics of infantile paralysis. It also may be used as a guide for those contemplating the purchase of an 'Iron Lung' as it readily shows the accessibility of respirators for any given community. Should the purchase of a respirator be considered, we suggest such a step be discussed with leading persons in the medical profession and a careful study be made with respect to local hospital facilities, number of respirators within transportable distance, availability of competent medical supervision, total population to be served, previous incidence of cases needing respirator treatment and whether the initial cost and upkeep warrant such a purchase.

"The Foundation owns a number of adult cabinet type respirators or 'Iron Lungs' which can be loaned to hospitals or communities during infantile paralysis epidemics or emergencies. These are supplied on the basis that the Chapter or some other local agency pay all transportation costs, make necessary repairs and make certain that trained personnel is placed in charge of each case.

"These loan respirators are not intended to meet all demands but are merely to supplement machines already owned in any given area. Our experience has shown that most owners of respirators freely cooperate in making their machines available on loan when needed, but in an emergency, if you are unable to borrow a machine, telephone or telegraph your needs to the National Foundation.

"The Medical Advisors of The National Foundation believe that a well balanced geographical distribution of respirators or 'Iron Lungs' would best serve the interests of all of our people. The Foundation is prepared to render any assistance that it can in regard to respirator problems."

LOCATION	NAME OF OWNER
Bluffton (Wells County)	Mr. Fred J. Tangeman
East Chicago (Lake County)	B.P.O.E.
Elkhart (Elkhart County)	Elkhart General Hospital
Evansville (Vanderburgh County)	American Legion, Funkhouser Post No. 8
Fort Wayne (Allen County)	No. 1 Fire House
	St. Joseph Hospital
Gary (Lake County)	Methodist Hospital
Indianapolis (Marion County)	Indiana University Medical Center
	Indianapolis City Hospital
Kendallville (Noble County)	Elks Lodge
Lawrence (Marion County)	Billings General Hospital
Logansport (Cass County)	Cass County Hospital
Michigan City (LaPorte County)	St. Anthony's Hospital
Mishawaka (St. Joseph County)	St. Joseph Hospital
Muncie (Delaware County)	Ball Memorial Hospital
Newcastle (Henry County)	Henry County Hospital
South Bend (St. Joseph County)	Epworth Hospital
Terre Haute (Vigo County)	St. Anthony's Hospital

SPECIAL NOTICE FROM SELECTIVE SERVICE HEADQUARTERS AND THE INDIANA STATE BOARD OF HEALTH

A nation-wide effort for the rehabilitation of young men rejected for military duty because they were infected with a venereal disease is rapidly being put into action in every state in the Union through the cooperation of local medical societies and state boards of health.

Here in Indiana the State Health Commissioner, Dr. John W. Ferree, and the Medical Officer of the Selective Service System in Indiana, Major Glen Ward Lee, have requested the earnest cooperation of all county health officers, practicing physicians, county medical societies, and all others concerned in initiating effective and thorough follow-up and adequate treatment of all men rejected for military duty because they were infected with a venereal disease.

If venereally infected young men undergo adequate treatment and measure up to certain specifications set out by the Surgeon General of the Army, they may be reclassified and selected for military service. The Surgeon General of the Army has indicated as necessary for such acceptance and reclassification for military service the following evidence of adequate treatment and observation:

(1) No clinical manifestations of the disease.

(2) A negative spinal fluid since infection and treatment, reported from a trustworthy source.

(3) In cases of infection of less than four years' duration, thirty to forty arsenical and forty to sixty insoluble bismuth injections, or their equivalent, with a minimum total of seventy-five injections given with approximate continuity (no rest periods or lapses) during the first thirty weeks of treatment.

(4) In infections of more than four years' duration at least twenty arsenical injections and at least forty to sixty insoluble bismuth injections, or their equivalent, with a minimum total of sixty injections in alternate courses; rest periods between courses not to exceed eight weeks.

(5) In congenital infections and in acquired infections of more than ten years' known duration, in which no clinical progression occurred since treatment was begun and in which a normal spinal fluid and negative physical examination is recorded not less than two years after treatment was terminated, the infection shall be regarded as "quiescent" and the individual shall be considered eligible for Class 1-A provided the treatment in question shall have included twenty arsenical and twenty heavy metal injections.

(6) For the determination of treatment, the signed statements of acceptable treatment sources administering it, with total number of doses of each drug, and approximate calendar dates of administration and available laboratory and clinical data shall be required as evidence.

If physicians cooperate wholeheartedly with this program of the Surgeon General of the Army, Indiana will be able to send more young men to the battle-fronts of the world. From December, 1940, through May, 1942, 2,966 young men examined by the Selective Service boards were reported to the Indiana State Board of Health as being infected with venereal disease. Probably all these 2,966 men were rejected for military duty because of their infection. No information was received regarding 725, or 24.5 per cent, of these rejected men.

Indiana now has 725 known cases of venereal diseases in registrants in the state about which no definite information regarding treatment, source of infection and contacts is available to the Indiana State Board of Health. This is an indication of the great need for closer follow-up procedures for investigation and treatment of all young men found to be infected with a venereal disease. The army feels that local medical societies, in cooperation with local health officers, can contribute to the control of the spread of venereal diseases by reporting to the State Health Commissioner whether or not they are treating selectees for venereal diseases.

In a recent letter received here in Indiana from the Administrator of the Federal Security Agency regarding the handling of venereally infected selectees, it was stated that ". . . it is hoped that the members of the medical profession in your state may be encouraged to work out with the local Selective Service boards and your State Health Commissioner such measures as may be necessary to rehabilitate promptly all infected selectees. The provision of such follow-up and treatment service is of the greatest importance in the effective mobilibation of our nation's manpower."

Commenting on this letter, Dr. John W. Ferree, State Health Commissioner, pointed out that local Selective Service boards are making investigations of selectees rejected for military service. It is hoped that local Selective Service boards will report to the Indiana State Board of Health the name and address of registrants infected with a venereal disease who have not been under treatment in the interval since they were rejected. If this is done, adequate follow-up and treatment may be instigated by the public health authorities.

Whenever any difficulty is experienced in following up and placing venereally infected rejectees under proper professional care, it is requested that the physician or health officer notify the State Health Commissioner, Indiana State Board of Health, Indianapolis. The State Board of Health is making every effort to have all selectees infected with venereal diseases effectively followed up and placed under treatment if necessary. It is important that the local Selective Service board be advised by physicians or clinics when adequate treatment of an infected selectee has been admin-

istered. When the selectee meets the requirements of the Surgeon General of the Army, he is ready for possible reclassification and induction into the Army. It is hoped that physicians will wholeheartedly cooperate with local boards in this important phase of our manpower procurement program.

REGISTRATION OF DIATHERMY APPARATUS ORDERED BY FEDERAL COMMUNICATIONS COMMISSION

(The following article is reprinted from *The Journal of the American Medical Association* of May 23, 1942. We regret that it did not come to our attention in time to be included in the June issue, for registration should have taken place prior to June eighth, but we wish to remind our members of this registration in case anyone failed to notice this requirement.—*Editor's Note.*)

All possessors of apparatus designed, constructed or used for generating radio frequency energy for therapeutic purposes, described generally as diathermy apparatus, must register each such device with the Federal Communications Commission in Washington, D. C., by June 8, under Order No. 96, promulgated by the commission on May 18. Any person who wilfully violates any provision of the order or who falsifies any information required to be furnished to the commission becomes subject to a fine of not more than $10,000 or imprisonment for not more than ten years, or both, and any unregistered apparatus may be confiscated.

Application for registration must be on forms obtainable from the commission in Washington or from any of its field offices. Individual applications must be made for each set of diathermy apparatus to be registered, and physicians should keep this in mind when requesting application forms. The executed forms must be forwarded to the secretary of the Federal Communications Commission in Washington. On receipt of an application, if the commission finds that sufficient and reliable information has been furnished, a nontransferable certificate of registration will be issued to the applicant, which must be conspicuously affixed to the apparatus for which it is issued.

Any person or organization hereafter in any manner coming into possession of apparatus required to be registered must apply for a certificate of registration within fifteen days after obtaining such apparatus. If registered apparatus is transferred, sold, assigned, leased, lent, stolen, destroyed or otherwise removed from the possession of the registrant the commission must, within five days, be notified of that fact and the name of recipient of the diathermy apparatus be furnished to the commission if such person is known to the registrant.

According to a news release issued by the commission, this order does not apply to persons owning sun lamps, infra-red lamps or ultra-violet ray devices. It applies only to apparatus generating electro-magnetic energy at any frequency between the limits of 10 kilocycles and 10,000 megacycles. Apparatus in the possession of the United States Government, its offices or agents, or apparatus which is under contract of delivery to the United States Government is not subject to the registration order.

This order is a wartime security measure and its promulgation follows a determination previously reached by the Office for Emergency Management, Defense Commission Board, in Order No. 4, that the national security and defense and the successful conduct of the war demand that the government have knowledge of all persons who possess apparatus equipped for the transmission of radio frequency energy. Diathermy apparatus may not only interfere with radio reception but can be easily converted into short wave radio transmitters and thus may be used to furnish valuable information to the enemy.

Application forms for the registration of diathermy apparatus may be obtained from the Federal Communications Commission, Washington, D. C., or from any of the field offices of the commission listed. Physicians should apply immediately to the nearest office for an application form to cover each unit of diathermy apparatus possessed. Address your communications to Inspector in Charge, Federal Communications Commission, 246 U. S. Courthouse, Chicago, Illinois.

ABSTRACT: INTOLERANCE TO DIETHYLSTILBESTROL

Nausea and vomiting have been the most frequent side-effects following administration of stilbestrol (diethylstilbestrol). A recent report (J.A.M.A., 119:400, May 30, 1942) points out that there is a definite relation between these symptoms and the nausea and vomiting of early pregnancy. If one will merely take the time to ask the prospective patient if she had nausea and vomiting with a previous pregnancy, it would serve as a warning to give not over 0.25 mg. daily as an initial dose. Desensitization may be accomplished by giving 0.1 mg. tablets once daily for five days, then increasing the dose gradually until the therapeutic level is reached.

WHAT WENT ON DURING WORLD WAR I

Items from THE JOURNAL of July, 1917

This number of THE JOURNAL carried three scientific articles: J. C. Fleming, Elkhart, wrote on "Factors Which Contribute to Safety and Success in Surgical Procedures"; George F. Beasley, Lafayette, discussed "The Evolution of a Splint for the Femur"; and George W. Spohn, Elkhart, discussed "A Working Knowledge of Opththalmology and Oto-Laryngology for the General Physician."

* * *

The editorials for the most part had a distinct war flavor, covering several subjects. The editor made it clear that patriotism was not confined to those actually in service, that a war censorship had been established and that this really was necessary. He advocated the cutting of the overplus of "red tape" in official Washington and ended the series of editorials with a stirring appeal to "Do Your Duty!"

* * *

Eighty-four doctors had registered at the New York session of the American Medical Association.

* * *

Dr. Arthur Dean Bevan, of Chicago, had been named as President-elect of the American Medical Association.

* * *

The American Medical Association had taken a decided stand against the use of alcohol, either as a beverage or as a therapeutic agent.

* * *

An effort was being put forth to make Sunday, July 1st, "Food Saving Day," with the motto, "Save the Waste and Win the War!"

* * *

The editor bemoaned the fact that certain Fort Wayne newspapers were charging mismanagement in the operation of Hope Hospital, sometimes known as the Protestant Hospital.

* * *

Chas. E. Scholl, retired physician of Logansport, had died at his home in that city at the age of seventy-five.

* * *

Dr. Richard E. Holder, Columbus, had died suddenly while attending the American Medical Association meeting, in New York.

* * *

The Lilly Base Hospital was to be known as Base Hospital Number 32.

* * *

Dr. Edmund D. Clark had been named to succeed Dr. John H. Oliver as the head of Base Hospital Number 32.

* * *

Dr. Chas. H. Mayo, president of the American Medical Association, had urged the naming of a medical officer in the President's Cabinet.

Editor Bulson and his son, Eugene, were indulging in an extensive fishing trip in Florida.

* * *

Owen county physicians had adopted an "upped" fee schedule.

* * *

The Huntington County Medical Society had tendered a going-away banquet to Dr. M. H. Krebs, who was leaving for a training camp.

* * *

Six permanent buildings were being erected at Plattsburg Camp, New York, to house 10,000 men.

* * *

Five nurses had been graduated from the City Hospital, at Marion, Dr. W. A. Fankboner delivering the address.

* * *

Dr. A. E. Guedel, Indianapolis, was on his way to "somewhere in France."

* * *

Dr. A. P. F. Gammick, South Bend, had been decorated with the Croix De Guerre. He was expected to return from France shortly.

* * *

The Indiana Field Hospital Number I, under leadership of Major Larue D. Carter, Indianapolis, had been called for field duty at Fort Benjamin Harrison. This was the first Hoosier guard organization to be called to service.

* * *

Plans for the new medical school building at the Medical Center had been approved and immediate construction ordered.

* * *

The complement of Base Hospital Number 32 consisted of 24 medical officers, 153 enlisted men, 65 nurses, 10 stenographers and secretaries and 10 scrubwomen.

* * *

Announcement was made of the arrival of Dr. Charles E. Bird, Greensburg, in Liverpool, where he was to take service at the Lord Derby War Hospital. Dr. Bird wrote that Americans were being received with a cordial, genuine welcome.

IT'S SELECTIVE SERVICE

We are going to pay for our *share of this war one way or another.* The easiest way is to buy War Savings Bonds and War Savings Stamps. The best way to be sure that every man and woman is doing his or her part is by the war Bond Quota System.

It's the Selective Service method of our civilian army.

UNDER THE CAPITOL DOME

HEALTH AIDE RESIGNS

Dr. James M. Hundley, who was assigned to Indiana by the United States Public Health Service, has resigned to enter the medical division of the United States Marine Corps. He will serve in the Marine Hospital at New Orleans. Doctor Hundley was connected with the Laporte district of the Indiana State Board of Health for the past ten months. Dr. John W. Ferree, secretary of the board, said that no successor has as yet been named.

SWIMMING POOL WARNING

Warning against swimming in any pools except those that are operated on a high standard of sanitation was issued by Dr. John W. Ferree, secretary of the Indiana State Board of Health.

He said that the available chlorine supply is limited, but that no curtailment of swimming is expected this summer, at least in tax-supported pools.

The year has started with a high drowning fatality rate. Twelve persons were drowned in April.

MEDICAL BOARD EXAMINATIONS

Examinations for licenses to practice in Indiana were given by the Indiana State Board of Medical Registration and Examination to approximately 135 medical school graduates on June 16, 17, and 18, in the Assembly Room of the Claypool Hotel. One hundred of these applicants were graduates of the Indiana University School of Medicine. Others were from Oregon, California, Illinois, Minnesota and other states.

The state board will hold its semi-annual meeting on July fourteenth.

ROCKY MOUNTAIN SPOTTED FEVER

Dr. John W. Ferree, secretary of the Indiana State Board of Health, calls attention to the fact that the period for Rocky Mountain spotted fever, the disease borne by wood ticks, has arrived again.

The mortality rate for reported cases of the fever has been 31 per cent since 1937 when it was first reported in this state.

Vaccine is available for those constantly exposed, and a serum for treatment of infected persons likewise is available.

"Doctors should give the serum within forty-eight hours after the appearance of the rash if it is to be effective," the health board executive said. "The serum can be obtained by physicians for persons unable to pay for it. They should wire their requests to the board."

About 25 per cent of the reported cases have come from Ripley and Dearborn counties, although six of the total of thirty-nine cases were north of Marion County.

The State Board of Health will be glad to provide any additional information desired by the medical profession, Dr. Ferree said.

PNEUMONIA SERUM CENTERS ELIMINATED

Decision to eliminate pneumonia serum centers and distribute the serum directly from the State Board of Health was made at a recent meeting of the board. The action was taken on basis of information obtained by a survey and on the opinion of the Pneumonia Control Committee of the Indiana State Medical Association.

Dr. John W. Ferree pointed out that pneumonia serum, under the new plan, will be obtainable from the State Board of Health on request. "This system should not interfere with prompt delivery," Dr. Ferree said.

"Both the committee and the state board feel that the serum should be administered and that it is a valuable help in treatment; one that physicians should not neglect. Physicians should feel free to order it when needed."

INDIANA OUTLAY FOR HEALTH INCREASES

That there has been a tendency in the past ten years for state and local governments to give more emphasis to the health and to the allied charitable and correctional aspects of administration is shown in a study of expenditures made by the Indiana Division of Accounting and Statistics. Naturally, the effects of the war, and of demands in some quarters for reductions in taxes, on this ten-year tendency cannot be forecast; but at present these important governmental functions are receiving more financial support than ever before. For example, the state, the ninety-two counties, and the one thousand and sixteen townships in Indiana spent only $6,203,086.99 for health and sanitation in the fiscal year 1931-32. From that year until the fiscal year 1940-41 these governmental units gradually increased their expenditures. The peak year was 1939-40 when the various governmental units spent $10,948,049.32. A slight decrease was shown for the last fiscal year (1940-41) with expenditures of $10,409,137.24 for health and sanitation. The ten-year average annual expenditure was $6,907,897.40, a figure well above the ten-year average for the preceding decade.

The same story can be told for governmental outlay to meet the cost of charities and corrections, both of which are important in their relation to the physical and mental health of the community. These costs include such items as the hospitals for the insane, the institution for caring for epileptics, the state prisons, the state hospital for tubercular patients, as well as necessary aid to dependent persons. The ten-year average annual expenditure for this phase of government was $25,601,509.36. From 1931 until 1936 the annual cost was con-

siderably less than the ten-year average; for example, in round numbers the costs were from $12,000,000 to $18,000,000 annually during the first half of the ten-year period. But in 1936 the outlay for charities and corrections took a sudden spurt upward, jumping from the $17,455,976.10 of the fiscal year 1935-36 to the greatly increased outlay of $23,605,253.33 in the succeeding fiscal year. Just as in the case of the outlay for health and sanitation, the peak for the ten-year periods was reached in the fiscal year 1939-40, the expenditure for that year being $43,274,723.60.

No such increase, however, is shown in the outlay made by the various governmental units for protection to person and property, a function not so closely allied to health but at least having some bearing. This includes mainly police, fire and sheriff departments. The cost for these services remains fairly close to the ten-year average of $15,602,164.25.

The statistical division's report shows that the total of all governmental expenditures within Indiana made a very large increase during the ten-year period, a fact which is, of course, not new; but, from the physician's point of view, the significant fact is that at least a very large per cent of the increase applied to governmental functions that tend toward an improvement in health condition.

Deaths

Marcus W. Lyons, Jr., M.D., clinical pathologist of South Bend, died suddenly on May nineteenth. He was sixty-seven years old. He graduated from the Georgetown University School of Medicine, Washington, D. C., in 1902. Doctor Lyons was an instructor in bacteriology at the North Carolina Medical College from 1908 to 1912, and had served as professor of bacteriology in Howard University and as pathologist at the Walter Reed Hospital, Washington, D. C. He served in the Medical Corps during World War I. He was a member of the American Association of Pathologists and Bacteriologists, the Society of American Bacteriologists, and the American Society of Clinical Pathologists. He was also a member of the St. Joseph County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Thomas C. Emmick, M.D., of Mount Vernon, died on May fourteenth at the age of sixty-nine. Doctor Emmick was a graduate of the Medical College of Ohio, Cincinnati, in 1897.

* * *

Julia C. Eberle, M.D., of Indianapolis, aged ninety-three, died on May seventeenth. She graduated from the Hahnemann Medical College and Hospital, Chicago, in 1889.

* * *

Fred R. Gobbel, M.D., of English, died on May seventeenth. He was eighty-four years old. He graduated from the Kentucky School of Medicine, Louisville, in 1901.

Samuel P. Gwaltney, M.D., aged seventy-seven years, died at his home in Rockport, May seventh. He graduated from the Eclectic Medical College, Cincinnati, in 1894.

* * *

Loren Hoover, M.D., of Decker, died May twenty-ninth at the age of seventy-four. Dr. Hoover was a graduate of the Medical College of Indiana, Indianapolis, in 1892. He was a member of the Knox County Medical Society and Indiana State Medical Association, and was a Fellow in the American Medical Association.

* * *

Albert G. Lueders, M.D., of Fort Wayne, died May eighteenth, aged sixty-six years. He was a graduate of the Homeopathic Medical College of Missouri, St. Louis, in 1898.

* * *

Christian Martz, M.D., of Fort Wayne, died on May twenty-third at the age of eighty-nine. Doctor Martz was a graduate of the Hahnemann Medical College and Hospital, Chicago, in 1882.

* * *

Richard B. Short, M.D., aged seventy-five years, died at his home in Bedford, May twenty-first. He was a graduate of the Kentucky School of Medicine, Louisville, in 1891, and of the New York University College of Medicine, New York City, in 1899.

* * *

Marion N. Thayer, M.D., sixty-six-year-old physician of Linton, died May thirteenth. He was a graduate of the Rush Medical College, Chicago, in 1902.

News Notes

Dr. R. L. Sensenich, of South Bend, was one of the speakers at the thirteenth annual Tri-State Hospital Assembly, in Chicago, on May eighth.

Dr. Clarence W. Mulliken, who has practiced medicine at Ridgeville for twenty-eight years, has moved to Greensburg.

Dr. A. F. Weyerbacher, of Indianapolis, has been named to the City Board of Public Health by Mayor Reginald H. Sullivan.

Dr. Frank Scott, who recently completed a three-year fellowship at the Mayo Clinic at Rochester, Minnesota, has become a member of the surgical staff of the Inlow Clinic at Shelbyville.

Dr. M. A. Austin, president of the Indiana State Medical Association, was the principal speaker at the Indiana Association of Pharmacists held in Indianapolis June seventeenth.

Dr. R. L. Sensenich, of South Bend, was re-appointed to a four-year term as a member of the Board of Trustees of the Healthwin Hospital at South Bend.

Dr. Henry W. Greist is re-opening his office in Monticello for the practice of medicine. He served as a medical missionary in Point Barrow, Alaska, for a number of years.

Dr. Gabe C. Long, of Thorntown, has been awarded a Fellowship in Surgery at the Mayo Foundation at Rochester, Minnesota, and will begin his work there July first.

Dr. Warren S. Tucker, of Indianapolis, was given the Trudeau Award granted by the Indiana Tuberculosis Association. The award consists of a six weeks' post-graduate course in tuberculosis, four at Saranac Lake, New York, and two at the Belleview Hospital, New York.

Dr. Marion Robert Scheetz, of Lewisville, and Miss Lorena May Ryman, of Rushville, were married at the home of the bride's parents on June fourteenth.

A campaign for the immunization of children has been completed by the Decatur County Medical Society and the Public Health Nursing Service, a total of 1,050 children having been immunized against diphtheria or smallpox, or both.

Dr. David A. Boyd, Jr., of the Indiana University School of Medicine, was named as state representative of the Committee on Public Education of the American Psychiatric Association held in Boston, Massachusetts, recently.

Major General Lewis B. Hershey, director of the Selective Service System, a native of Steuben County, was the principal speaker at the annual meeting of the Twelfth Councilor District of the Indiana State Medical Association on June eleventh.

Dr. and Mrs. Monroe L. Ploughe, of Elwood, celebrated their Fiftieth Wedding Anniversary on Sunday, June seventh. Dr. Ploughe also recently celebrated the fiftieth anniversary of his medical practice.

The current number of Annals of Medical History (May 1942) contains an article on the "History of the Effects of War on Medicine" by Milton I. Roemer, which is well worth reading. The Journal is on file in the medical department of the Indianapolis City Library and in the Library of the Medical School.

Dr. James H. Stygall, of Indianapolis, was elected regent of the American College of Chest Physicians for Indiana, Illinois and Iowa at the recent annual meeting held in Atlantic City. Dr. J. V. Pace, of New Albany, was made governor for Indiana.

At the Indiana Roentgen Society, held in Indianapolis, May fourteenth, Dr. Chester Stayton, of Indianapolis, was elected president; Dr. Wemple Dodds, of Crawfordsville, president-elect; Dr. Cecil Wright, of Anderson, vice-president; and Dr. Harold C. Ochsner, of Indianapolis, secretary-treasurer.

Former staff members of the St. Elizabeth Hospital at Lafayette, now serving their country, were honored at a flag raising ceremony and dedication of a service flag on National Hospital Day. The honored doctors are: B. J. Harvey, Will W. Washburn, Thomas G. Graham, Karl C. Randall, George Hinn, G. W. Marsh, Hubert Gros, J. A. Van Kirk and G. G. Morrison.

Dr. Margaret T. Owen, who has been practicing medicine in Attica, has returned to Bloomington to resume her practice. Dr. Owen was formerly connected with Indiana University.

Dr. Fred W. Rankin, Lexington, Kentucky, retired as a member of the Medical Advisory Board of the Office of Civilian Defense upon being called to active service in the Office of the Surgeon General of the Army. Dr. John T. O'Rourke, dean of the University of Louisville School of Dentistry, Louisville, Kentucky, has been designated to fill the vacancy of the board.

First-aid kits and preliminary and advanced courses in first aid are a part of the equipment and activity to be found in many of the six hundred ninety-five USO units in continental United States, it has been announced by Robert Heininger, director of the Program Division of United Service Organizations.

"Proficiency in first aid," said Mr. Heininger, "has virtually become a necessity for civilians today, and it is obvious that members of our fighting forces cannot be too expert in first aid. Naturally, USO is extremely pleased at this heightened interest in first-aid training, and the increased use of the ever-growing facilities of USO."

AMERICAN RED CROSS SENDS DRUGS, MEDICAL SUPPLIES TO RUSSIA

Drugs, medical supplies and clothing valued at more than $3,500,000 have been sent to the U.S.S.R. by the American Red Cross in recent months, it has been announced. Additional shipments are now being prepared, and it is anticipated that the amount of relief furnished will be approximately doubled within the near future.

Included among the drugs were 1,000,000 sulfapyridine, 4,000,000 sulfanilamide, and 1,500,000 quinine tablets, as well as 1,000 pounds of iodine. Among hospital supplies were 1,000,000 hypodermic needles, 200,000 hot-water bags, 295,000 pairs of surgical gloves, 20,000 tourniquets, 60,000 syringes, 850,000 forceps, 100,000 rolls of adhesive plaster, 36,000 two- and three-inch bandages, and x-ray equipment valued at $270,000. Shipments have also included 2,626,000 pounds of laundry and toilet soap, while 100 tons of surgeon's green soap are to be forwarded shortly.

Approximately 500,000 garments for men, women, and children, in addition to shoes and blankets, have also been sent to Russia.

The list of medical supplies needed in Russia was drawn up in conferences between representatives of the Union of Red Cross and Red Crescent Societies and members of the American Red Cross and the British Red Cross who accompanied the official governmental missions of Great Britain and the United States to the U.S.S.R. last fall.

Military News



The 151st Infantry Regiment's Medical Detachment, Fort Benning Georgia, composed of Indiana soldiers and officers, subscribed 100 per cent for regular monthly purchases of war bonds out of its Army pay.

Pictured above, Major Albert H. Marshall of Indianapolis, regimental surgeon, receives the "Honor Unit" award from Colonel Albert H. Whitcomb, also from Indianapolis, who is commander of the 151st Infantry. The "Medics" were among the first units in the regiment to subscribe 100 per cent.

From left to right in the photograph are: Private James Jarrel; Lieutenant Colonel Robert L. Mottern, Indianapolis, regimental executive officer and in charge of the bond sales; Private Robert Benton, Indianapolis; Colonel Whitcomb; Private Joseph Metsker, Noblesville; First Sergeant Carrol E. Starkey, Terre Haute; Major Marshall; Private Walter S. Fudge; Private Oscar Beckman, Jasper; and Private Clayton Groves, Indianapolis.

Dr. Frank Albertson, of Trafalgar, is now stationed at Hawaii.

Dr. Kenneth I. Sheek, of Greenwood, is now stationed in the South.

Dr. William E. Barnett, formerly of Logansport, now serving with the United States Army Medical Corps, has been promoted to the rank of major.

Dr. Donald A. Covalt, of Muncie, is now serving with the Army Air Corps at Miami Beach, Florida. He has been commissioned a first lieutenant.

Dr. Edward H. Wagenaar, formerly of Shipshewana, now at Fort Benjamin Harrison, has been promoted to major in the United States Army.

Dr. Lawrence M. McNaughton, of Petersburg, has been given the rank of captain and is stationed in the hospital at Camp Croft in Spartansburg, South Carolina.

Dr. Alan L. Sparks, of Indianapolis, has been commissioned a major in the Medical Corps and has reported for duty at the Billings General Hospital, Fort Harrison.

Dr. Forrest E. Keeling, formerly of Portland, has been transferred to Camp Callan, California. Lieutenant Colonel Keeling will be in command of the 166th Station Hospital at Camp Callan.

Dr. Russell J. Spivey, of Indianapolis, now on active duty at Baer Field, Fort Wayne, has been commissioned a major in the Medical Corps of the army air force.

Dr. William M. Mount, of Crawfordsville, has been transferred from the Medical Corps at Camp Shelby, Mississippi, to Anchorage, Alaska. Doctor Mount is a captain.

Dr. Edgar G. Bridwell, formerly of Delphi, left May tenth for San Diego, California, where he will enter the medical branch of the United States Air Corps.

Major Guy A. Owsley, of Hartford City, has been given the rating of lieutenant colonel in the Army Medical Corps. He is based at the Billings General Hospital, Fort Harrison, Indiana.

Dr. Norman R. Booher, of Indianapolis, has been promoted from the rank of captain to major in the United States Army Medical Corps. He had been stationed at the Fort Benjamin Harrison Station Hospital but was assigned to represent the Army Surgeon-General on the Indiana Medical Officers' Recruiting Board.

Dr. D. Lee Andrews, of Clermont, was given a farewell dinner party by the Andrews Clinic staff prior to his leaving for duty in the Medical Corps of the United States Army. Doctor Andrews has been commissioned a captain and will serve as a surgeon.

Dr. John R. Matthew, formerly of Knox, left for Camp Grant, Illinois, on May second, a few hours after he had rushed his son to the hospital for an appendectomy. Doctor Matthew was to report to camp May second and since his son was getting along satisfactorily he left as he had planned.

INDIANA PHYSICIANS IN MILITARY SERVICE

(Editor's Note: The following list was compiled by the Indiana State Medical Association and is the most accurate that could be obtained. Others have been appointed since this list was compiled, and further lists will be published as they are reported to The Journal.

Name	*Home Address*	*Station*
Capt. Walter J. Aagesen,	Anderson	Ft. Devens, Mass.
First Lt. Robert P. Acher,	W. Terre Haute	Ft. Oglethorpe, Ga.
First Lt. Samuel L. Adair,	Jeffersonville	Brooks Field, Texas
First Lt. David L. Adler,	Shelbyville	Fort Jackson, S. C.
First Lt. Ray N. Adler,	Evansville	Ft. McClelland, Alabama
Capt. Harold C. Adkins,	Indianapolis	Sheppard Field, Texas
First Lt. Loren F. Ake,	Cambridge City	Camp Polk, Louisiana
First Lt. F. P. Albertson,	Trafalgar	Kauaik, Hawaii
First Lt. E. J. Alexander,	Evansville	Camp Polk, Louisiana
First Lt. William Appel,	Fort Wayne	Camp Shelby, Miss.
First Lt. Theodore D. Arlook,	Elkhart	Fort Knox, Kentucky
First Lt. Robert L. Armington,	Anderson	
First Lt. Chas. J. Aucreman,	Hartford City	Ft. Benjamin Harrison, Ind.
First Lt. Eugene W. Austin,	Anderson	Montgomery, Alabama
First Lt. Bruce F. Avery,	Whiting	Camp Grant, Illinois
First Lt. Robt. C. Badertscher,	Bloomington	Kelly Field, Texas
First Lt. Leslie M. Baker,	Muncie	Ft. Oglethorpe, Ga.
Joseph E. Ball,	Indianapolis	
First Lt. Douglas F. Barkley,	Odon	Ft. Oglethorpe, Ga.
First Lt. William E. Barnett,	Logansport	Fort Knox, Kentucky
First Lt. Ralph C. Beams,	Fairmount	Camp Polk, Louisiana
Lt. Paul Beard,	Indianapolis	Parris Island, S. Carolina
First Lt. Frank B. Bard,	Crothersville	Camp Grant, Illinois
Ernest R. Beaver,	Indianapolis	
First Lt. Jene R. Bennett,	Plymouth	Lowry Field, Colorado
First Lt. Robert D. Berke,	South Bend	Fort Jackson, South Carolina
Lt.-Comdr. Lester D. Bibler,	Indianapolis	San Diego, Calif.
A. G. Blazey,	Washington	
Capt. Russell M. Blemker,	Greensburg	Fort Knox, Kentucky
Capt. Asa W. Bloom,	Marion	Camp Shelby, Miss.
First Lt. Richard S. Bloomer,	Rockville	Fort Knox, Kentucky
First Lt. Norman R. Booher,	Indianapolis	Ft. Benjamin Harrison, Ind.
Lt. (j.g.) Clarence C, Bosselmann,	Fort Wayne	Norfolk Naval Hospital Portsmouth, Va.
Capt. Copeland C. Bowers,	Kokomo	Sheppard Field, Texas
Lt. Colonel J. W. Bowers,	Fort Wayne	Ft. Benjamin Harrison, Ind.
Edward B. Boyer,	Indianapolis	
First Lt. I. W. Brill,	Indianapolis	Ft. Oglethorpe, Ga.
E. G. Bridwell,	Delphi	
Major Roger W. Brookie,	Flora	Camp Croft, South Carolina
First Lt. David B. Brown,	Gary	
First Lt. Frederic W. Brown,	Fort Wayne	Kelly Field, Texas
First Lt. George E. Brown,	Greenwood	
First Lt. Harry M. Brown,	Indianapolis	Fort Knox, Kentucky
Capt. Robert M. Brown,	Marion	Camp Shelby, Miss.
First Lt. Ray H. Burnikel,	Indianapolis	Lowry Field, Colorado
Lt. (j.g.) Floyd L. Burris,	Michigan City	
First Lt. Hanly Burton,	Indianapolis	Fort Lewis, Washington
Basil K. Byrne,	New Albany	
First Lt. Francis E. Carrell,	Indianapolis	Camp Shelby, Miss.
Capt. W. C. Callaghan,	Greensburg	Fort Knox, Kentucky
First Lt. John E. Carter,	Indianapolis	Camp Shelby, Miss.
First Lt. Herbert O. Chattin,	Indianapolis	Brookley Field, Mobile, Ala.
First Lt. Wallace E. Child,	Princeton	Wright Field, Dayton, Ohio
First Lt. Paul A. Clouse,	Evansville	Kelly Field, Texas
First Lt. Benj. B. Cohen,	East Chicago	Fort Jackson, S. C.
First Lt. Bernard W. Cohen,	Indianapolis	Manila, P. I.
First Lt. Morris Cohen,	Mitchell	Camp Polk, Louisiana
First Lt. Calvin F. Cohn,	Seymour	
Herman T. Combs,	Evansville	Drew Field, Tampa, Fla.
Major Glenn E. Comstock,	Gary	Camp Shelby, Miss.
First Lt. Leo F. Connoy,	Indianapolis	Camp Shelby, Miss.
Philip M. Corboy,	Valparaiso	Great Lakes, Illinois
Donald A. Covalt,	Muncie	
Capt. Harry M. Covell,	Auburn	Ft. McClelland, Ala.
James W. Crain,	St. Meinrad	
Joseph B. Cuchman,	Gary	
First Lt. Charles A. Cutting,	South Bend	Ft. Benjamin Harrison, Ind.

Name	Home Address	Station
Capt. Robert E. Daniels,	Decatur	Fort Jackson, S. C.
First Lt. Fred N. Daugherty,	Crawfordsville	Camp Grant, Illinois
First Lt. Morris Davidson,	Elkhart	Scott Field, Illinois
Capt. Wm. D. Davidson,	Evansville	Fort Knox, Kentucky
First Lt. Samuel J. Davis,	Brazil	Bowman Field, Kentucky
Lt.-Comdr. Wm. D. C. Day,	Seymour	San Diego, Calif.
Major Albert DeArmond,	Indianapolis	Carlisle Barracks, Pa.
Capt. Wm. Deutsch, Jr.,	Muncie	% Postmaster San Francisco
First Lt. Gordon A. Dickinson,	Petersburg	Ft. Benning, Ga.
First Lt. Ernest Dietl,	South Bend	Bermuda Island
First Lt. Jack E. Dittmer,	Valparaiso	Louisville, Ky.
Colonel Thomas Dobbins,	Evansville	Ruston, Louisiana
Lt. Stephen J. Donovan,	Michigan City	St. Thomas, Virgin Islands
First Lt. Jack Dorman,	Indianapolis	Fort Knox, Kentucky
Col. James W. Duckworth		Sternberg General Hospital, Manila, P. I.
First Lt. Melvin Durkee,	Evansville	Fort Knox, Kentucky
Lt. (s. g.) Edwin W. Dyar,	Indianapol's	Pensacola, Florida
First Lt. Henry T. Earhart,	Indianapolis	Tullahoma, Tenn.
Lt.-Comdr. Cecil L. Eisaman,	Indianapolis	Charleston, South Carolina
First Lt. Stephen R. Ellis,	Versailles	Fort Knox, Kentucky
Capt. Milton W. Erdel,	Frankfort	Teaneck Armory, West Englewood, New Jersey
Paul B. Evans,	Indianapolis	
First Lt. Ben Firestein,	South Bend	Camp Wheeler, Ga.
First Lt. Kenneth B. Fisher,	South Bend	Fort Ray, Sitka, Alaska
First Lt. B. E. Fitzgerald,	Indianapolis	Patterson Field, Ohio
Capt. Ray A. Fleetwood,	Nappanee	Camp Lee, Virginia
First Lt. J. O. Flora,	Indianapolis	Kodiak, Alaska
First Lt. Joseph W. Freeman,	Syracuse	Montgomery, Alabama
Willis A. Fromhold,	Indianapolis	
Capt. Robert D. Fry,	Indianapolis	Ft. Harrison, Indiana
James L. Fuelling,	Newburgh	
Edward B. Gall,	Marion	
First Lt. Edgar A. Garland,	Indianapolis	Charlotte, N. C.
First Lt. Wm. S. Garner,	Indianapolis	Fort Hayes, Ohio
Dillon D. Geiger,	Bloomington	
Capt. Jacob E. Gillespie,	Indianapolis	Miami Beach, Fla.
First Lt. Wm. A. Gitlin,	Bluffton	Fort Thomas, Kentucky
Lt.-Col. John C. Glackman, Sr.,	Rockport	Denver, Colorado
Major Maurice E. Glock,	Fort Wayne	Camp Shelby, Miss
First Lt. Hubert Goodman,	Terre Haute	Chattanooga, Tenn.
First Lt. James H. Gosman,	Jasper	Ft. Oglethorpe, Ga.
First Lt. M. B. Gossard,	Kempton	Ft. Benning, Ga.
First Lt. Jerome A. Graf,	Indianapolis	Camp Grant, Illinois
First Lt. Thomas G. Graham,	Lafayette	Camp Shelby, Miss.
First Lt. Paul M. Gray,	Huntington	
Lt. (s.g.) William L. Green,	Indianapolis	Mare Island, San Francisco
Capt. Oliver W. Greer,	Indianapolis	Fort Knox, Kentucky
Major John H. Greist,	Indianapolis	O'Reilly Gen. Hospital, Springfield, Mo.
Lt. (j.g.) Wait R. Griswold,	Indianapolis	Pearl Harbor, Hawaii
First Lt. Hubert Gros,	Delphi	Lacarne, Ohio
First Lt. Robert H. Grove,	Seircleville	Camp Shelby, Miss.
First Lt. Gordon H. Haggard,	Hope	Ft. Oglethorpe,, Ga.
Alvin P. McHall,	Richmond	Ft. Devens, Mass.
First Lt. Bernard B. Hall,	Indianapolis	Camp Grant, Illinois
Lt. Frank M. Hall,	Lafayette	Indianapolis
Lt.-Col. Frank Hallam,	Indianapolis	Camp Shelby, Miss.
Capt. Benjamin L. Harrison,	New Castle	Ft. Oglethorpe, Ga.
First Lt. M. L. Harshman,	Colfax	
Capt. L. Paul Hart,	Evansville	Camp Shelby, Miss.
First Lt. Bennett B. Harvey,	Indianapolis	Camp Shelby, Miss.
First Lt. B. J. Harvey,	Lafayette	Bermuda Island
Lt. (j.g.) James H. Hawk,	Indianapolis	Quantico, Va.
Lt.-Comdr. Everett L. Hays,	Indianapolis	Parris Island, S. Carolina
Lt. John J. Hayes,	Fort Wayne	Portsmouth, Va.
Lt. Albert H. Held,	Huntingburg	Naval School, Wash., D.C.
Capt. George A. Held,	Jasper	Fort Knox, Kentucky
Ramon A. Henderson,	Muncie	
Marshall I. Hewitt,	South Bend	
First Lt. Thomas H. Hewlett,	New Albany	Ft. Mills, Manila, P. I.
First. Lt. A. L. Hickman, Jr.,	Hammond	Camp Grant, Illinois
Ft. Lt. Warren R. Hickman,	Logansport	Ft. Thomas, Kentucky
First Lt. Kenneth G. Hill,	Indianapolis	Ft. Oglethorpe, Ga.
Col. D. G. Hilldrup,	Indianapolis	Baltimore, Md.
First Lt. John L. Hillery,	Silver Lake	Ft. Oglethorpe, Ga.
Leroy E. Hoeck,	Charlestown	
Major Will W. Holmes,	Logansport	Spartansburg, S. C.
Lt.-Col. Claude D. Holmes,	Indianapolis	Baltimore, Md.
First Lt. Russell K. Horsman,	Kokomo	Ft. Benjamin Harrison, Ind.
Major Robert Howell,	Indianapolis	Camp Shelby, Miss.
First Lt. Frank J. Imburgia,	Marion	
Capt. Nathaniel C. Isler,	Jeffersonville	Ft. Benjamin Harrison, Ind.
Lt.-Col. George E. Iterman,	New Castle	Pine Camp, Watertown, N.Y.
Capt. Arthur N. Jay,	Indianapolis	Fort Knox, Ky.
Major James E. Jobes,	Indianapolis	Camp Shelby, Miss.
First Lt. Robert B. Johnson,	Butlerville	Fort Thomas, Ky.
D. D. Johnston,	Fort Wayne	Ft. Hayes, Ohio
Capt. Francis P. Jones,	Indianapolis	Hdqtrs. 2d Army, Memphis, Tenn.
Paul A. Jones,	Lyons	
First Lt. Robert N. Kabel,	Indianapolis	Ft. Knox, Ky.
First Lt. Bernard Karpel,	Bedford	Brooks Field, Texas
First Lt. Nelson N. Kauffman,	Indianapolis	Fort Knox, Ky.
Capt. Sidney A. Kauffman,	Indianapolis	Fort Jackson, S. C.
Lt. Col. F. E. Keeling,	Portland	Camp Shelby, Miss.
William A. Kemp,	Connersville	
Capt. Frank J. Kendrick,	Gary	Ft. Benning, Ga.
First Lt. Julien C. Kennedy,	Indianapolis	Bowman Field, Ky.
First Lt. John F. Kerr, Jr.,	Indianapolis	Jefferson Barracks, Mo.
First Lt. Nicholas E. Keserie,	Gary	Fort Jackson, S. C.
First Lt. John H. Kilmer,	Fort Wayne	Fort Knox, Ky.
Joseph W. King,	Anderson	San Diego, Calif.
First Lt. James M. Kirtley,	Crawfordsville	Camp Gordon, Ga.
First Lt. Wm. R. Kirtley,	Crawfordsville	Camp Grant, Ill.
First Lt. Meyer W. Kobrin,	Gary	Camp Livingston, La.
Capt. George L. Kress,	Warsaw	Camp Robinson, Ark.
Emil N. Kveton,	Fort Wayne	Great Lakes, Illinois
Capt. Chester K. Lamber,	Indianapolis	Ft. Benj. Harrison, Ind.
First Lt. James L. Lamey,	Anderson	Ft. Benj. Harrison, Ind.
Major John Lansford,	Redkey	Camp Shelby, Miss.
First Lt. Harold J. Lawn,	Marion	Ft. Benj. Harrison, Ind.
First Lt. Kenneth F. Laws,	Lafayette	Fort Knox, Kentucky
Major Glen Ward Lee,	Richmond	Indiana Selective Service System, Indianapolis
Capt. Ralph U. Leser,	Indianapolis	Ft. Clayton, Panama Canal
First Lt. Ermil T. Leslie,	Evansville	Ft. Benning, Ga.
E. L. Libbert,	Lawrenceburg	
Lt. Harold E. List,	Marion	Detroit, Mich.
First Lt. John W. Little, Jr.,	Indianapolis	Ft. Knox, Ky.
Sam W. Litzenberger,	Anderson	Philadelphia, Pa.
First Lt. Wm. M. Loehr,	Indianapolis	Ft. Sam Houston, San Antonio, Texas
Lt.-Comdr. Norman S. Loomis,	Indianapolis	Mare Island, Calif.
First Lt. Leonard C. Lund,	Argos	Fort Knox, Kentucky
First Lt. Wm. B. Lybrook,	Galveston	Fort Haynes, Ohio
Capt. Robert E. Lyons, Jr.,	Bloomington	Tacoma, Washington
Lt.-Comdr. Pierce MacKenzie,	Evansville	San Diego, Calif.
Joe H. McCool,	Evansville	
First Lt. Harry N. McClelland,	Indianapolis	Fort Knox, Ky.
First Lt. George A. McCoy,	Indianapolis	Camp Coake, Calif.
Capt. James W. McEwen,	Terre Haute	National Guard Armory, Toledo
First Lt. C. P. McLaughlin,	Pendleton	Fort Hayes, Ohio
First Lt. Virgil C. McMahan,	Bedford	Ellington Field, Texas
First Lt. L. M. McNaughton,	Petersburg	Spartanburg, S. C.
Capt. Charles H. Manley,	Rising Sun	Camp Shelby, Miss.
First Lt. C. H. Marchant,	Bloomington	Fort Knox, Kentucky
First Lt. George W. Marsh,	Otterbein	Camp Shelby, Miss.
Capt. Albert L. Marshall,	Indianapolis	Camp Shelby, Miss.
First Lt. Everett E. Mason,	Evansville	Camp Blanding, Fla.
John R. Matthew,	Knox	
First Lt. Wm. B. Matthew,	Indianapolis	Camp Shelby, Miss.
Capt. Earl E. Meriele,	Indianapolis	Ft. Benj. Harrison, Ind.
First Lt. Basil M. Merrell,	Brownstown	Camp Shelby, Miss.
First Lt. Edgar G. Miller,	Indianapolis	Macon, Ga.
H. E. Miller,	Shelbyville	
First Lt. Orval J. Miller,	Fort Wayne	Spartanburg, S. C.
Richard C. Miller,	Indianapolis	Kessler Field, Biloxi, Miss.
First Lt. Robert B. Miller,	Argos	Camp Gordon, Ga.
Roy D. Miller,	Martinsville	

Name	Home Address	Station
First Lt. Roland E. Miller,	Plymouth	Ft. Leonard Wood, Mo.
Capt. Irving Mishkin,	Elkhart	Ft. Benj. Harrison, Ind.
First Lt. George S. Moore,	Anderson	
First Lt. Marion H. Morris,	Indianapolis	Ft. Oglethorpe, Ga.
First Lt. William H. Morrison,	Howe	Fort Knox, Ky.
First Lt. William M. Mount,	Crawfordsville	Camp Shelby, Miss.
First Lt. Donald F. Mueller,	Fort Wayne	Camp Shelby, Miss.
C. E. Muhleman,	LaPorte	
Lawrence W. Mueller,	Fort Wayne	LaGard Hospital, New Orleans
First Lt. Paul F. Mueller,	Lawrenceburg	Brew Field, Fla.
First Lt. Joseph E. Mullin,	Indianapolis	Lowry Field, Colo.
First Lt. Joseph H. Mullen,	Fort Wayne	Camp Shelby, Miss.
First Lt. Sydney S. Norwick,	Indianapolis	Fort Knox, Ky.
First Lt. Benjamin F. Novack,	East Chicago	Fort Knox, Ky.
First Lt. Andrew Offutt,	Spiceland	Ellington Field, Texas
Charles W. Olcott,	Aurora	
First Lt. Abraham M. Owen,	Attica	Bakersfield, Calif.
Capt. John H. Oyer,	Fort Wayne	Camp Shelby, Miss.
Capt. Albert L. Olsen,	Marion	
Major Guy A. Owsley,	Hartford City	Fort Harrison, Ind.
First Lt. B. E. Paletz,	Michigan City	Fort Jackson, S. C.
Capt. John M. Palm,	Brazil	Randolph Field, Texas
Vernon K. Pancost,	Elkhart	
First Lt. D. D. Parke,	Indianapolis	Fort Harrison, Ind.
First Lt. Alex. J. Pasterak,	Indianapolis	Fort Knox, Ky.
First Lt. Norman F. Peacock,	Crawfordsville	San Francisco, Calif.
First Lt. James T. Pebworth,	Indianapolis	Fort Harrison, Ind.
First Lt. Malcolm O. Peeler,	Fort Wayne	Camp Shelby, Miss.
First Lt. John P. Pennell,	Kokomo	Fort Benning, Ga.
Harold G. Petitjean,	Haubstadt	
Major Dudley Pfaff,	Indianapolis	Meridian, Miss.
James M. Pfeifer,	Lawrenceburg	
Lt. (jr.) Robert W. Phares,	Muncie	Indianapolis (Naval Recruiting Station)
Lt.-Comdr. John R. Phillips,	Michigan City	Londonderry, Northern Ireland
Clement L. Poston,	Richmond	San Diego, Calif.
First Lt. Douglas W. Price,	Nappance	Camp Blanding, Fla.
First Lt. S. M. Radivojec,	Valparaiso	Fort Custer, Michigan
Major Frank B. Ramsey,	Indianapolis	Camp Shelby, Miss.
Capt. Hugh S. Ramsey,	Bloomington	Claiborne, La.
Karl C. Randall, II,	Lafayette	
First Lt. Alden J. Rarick,	Cromwell	Petersburg, Va.
First Lt. Roger R. Reed,	Indianapolis	Fort Knox, Ky.
Major Wm. C. Reed,	Bloomington	Camp Shelby, Miss.
Capt. Henry H. Reeder,	Jeffersonville	Fort Knox, Ky.
R. J. Rhorer,	Kokomo	
First Lt. Norman Richard,	Shelbyville	Camp Chaffee, Arkansas
First Lt. H. C. Rininger,	Chrisney	Fort Riley, Kansas
Lt. John A. Ritchey,	Marion	Ft. Harrison, Indiana
Capt. G. E. Ritteman,	Indianapolis	Ft. Harrison, Indiana
G. A. Rivers,	Indiananpolis	Washington, D. C.
First Lt. Otto F. Rogers,	Bloomington	Fort Oglethorpe, Ga.
Lt.-Comdr. Thomas P. Rogers,	Indianapolis	Great Lakes, Illinois
First Lt. Ralph G. Rohner,	Mitchell	Washington, D. C.
Capt. Floyd Romberger, Jr.,	Lafayette	San Jose, Calif.
Jacob Rosenwasser,	Mishawaka	
First Lt. Alexander T. Ross,	Indianapolis	Ft. Harrison, Indiana
Capt. Maurice Rothberg,	Fort Wayne	Ft. Oglethorpe, Ga.
First Lt. Harry G. Rotman,	Jasonville	Ft. Knox, Ky.
Capt. Milton R. Rubin,	Gary	Fort Custer, Mich.
First Lt. Robert A. Sadie,	Michigan City	Camp Grant, Ill.
Richard J. Sanderson,	Westville	
Capt. William A. Sandy,	Indianapolis	Territory of Hawaii
Arthur R. Savage,	Fort Wayne	
First Lt. Burton E. Scherb,	Clay City	Ellington Field, Texas
First Lt. Herbert A. Schiller,	South Bend	Fort Knox, Ky.
First Lt. Richard K. Schmitt,	Columbus	Camp Shelby, Miss.
First Lt. Charles P. Schneider,	Evansville	
First Lt. Harold F. Schnuecht,	Mishawaka	Fort Knox, Ky.
First Lt. Ivan W. Scott,	Indianapolis	Camp Shelby, Miss.
First Lt. Samuel Scott,	Orleans	Columbia, S. C.
First Lt. Herbert L. Sedam,	Indianapolis	Fort Knox, Ky.
First Lt. William K. Sennett,	Winamac	Camp McQuaide, Calif.
W. L. Sharp,	Anderson	
First Lt. John L. Sharp,	Crawfordsville	Fort Knox, Ky.
First Lt. Kenneth Sheek,	Greenwood	
Jack Shields,	Brownstown	
First Lt. Francis G. Sheehan,	Indianapolis	Camp Shelby, Miss.
First Lt. Tom S. Shields,	Brownstown	Ft. Oglethorpe, Ga.
Comdr. John T. Short,	Fort Wayne	
First Lt. Gerald Shortz,	Kendallville	Macon, Ga.
First Lt. Harry Shulruff,	Hammond	Chicago, Ill.
First Lt. Ben J. Siebenthal,	Indianapolis	Phoenix, Ariz.
First Lt. William B. Sigmund,	Columbus	Camp Rucker, Ozark, Ala.
First Lt. Frederick H. Simmons,	Goshen	New Orleans, La.
Lt. Frank G. Sink,	Remington	Camp Joseph T. Robinson, Little Rock, Ark.
Lt. James G. Shanklin,	Hammond	San Antonio, Texas
First Lt. Edward M. Sirlin,	Mishawaka	St. John, Newfoundland
Major J. S. Skobba,	Indianapolis	Atlanta, Ga.
First Lt. John T. Slama,	Indianapolis	Fort Knox, Ky.
First Lt. Earl C. Slaughter,	Hammond	Macon, Ga.
First Lt. Crystall R. Slick,	Lynn	Fort Jackson, S. C.
Lt.-Comdr. Harry H. Slominski,	South Bend	Somewhere in the Pacific
Lt.-Col. David H. Sluss,	Indianapolis	Camp Shelby, Miss.
Herschel S. Smith,	Gary	Camp Grant, Ill.
Joseph S. Smith,	Plainfield	N. Little Rock, Ark.
First Lt. Robert A. Smith,	New Castle	Fitzsimmon Hospital, Denver, Colo.
Lt.-Col. Roy L. Smith,	Indianapolis	Fitzsimmon Hospital, Denver, Colo.
First Lt. Joseph J. Spalding,	Indianapolis	Hot Springs National Park, Arkansas
First Lt. William B. Smith,	Indianapolis	
Earl M. Spaulding,	New Albany	Pensacola, Fla.
Major Russell Spivey,	Indianapolis	Baer Field, Fort Wayne
William J. Stangle,	Mooresville	Coronado, Calif.
First Lt. John S. Stanley,	East Chicago	Fort Knox, Ky.
First Lt. Peter Stecy,	Whiting	Ft. Harrison, Ind.
First Lt. Lowell R. Stephens,	Covington	Ft. Oglethorpe, Ga.
First Lt. Sydney L. Stevens,	Indianapolis	Fort Jackson, S. C.
Col. W. M. Stout,	New Castle	Camp Shelby, Miss.
First Lt. Wm. M. Stubbins,	Elkhart	Ft. Oglethorpe, Ga.
First Lt. Wm. E. Sutton,	Edinburg	Olympia, Wash.
First Lt. Howard E. Sweet,	Richmond	Spartanburg, S. C.
Wendell C. Stover,	Boonville	MacDill Field, Tampa, Fla.
Capt. Clifford C. Taylor,	Indianapolis	Ft. Sam Houston, San Antonio, Texas
Lt.-Comdr. F. W. Taylor,	Indianapolis	Norfolk, Va.
Capt. Michael T. Tedesco,	Hammond	Fort Jackson, S. C.
First Lt. Ames R. Templeton,	South Bend	Fort Hayes, Ohio
Louis L. Teplinsky,	East Chicago	
Charles C. Terry,	South Bend	
Lt. (s.g.) Ray G. Tharpe,	Indianapolis	Charleston, S. C.
First Lt. Jay W. Thom,	Gosport	Fort McClelland, Ala.
Major Morris C. Thomas,	Indianapolis	Fort Knox, Ky.
First Lt. John M. Thompson,	Bremen	Carlisle Barracks, Pa.
First Lt. Richard J. Throckman,	Evansville	Camp Shelby, Miss.
Fred L. Tourney,	Indianapolis	
First Lt. John H. Uhrich,	Fort Wayne	Charlotte, N. C.
Major George H. Van Kirk,	Kentland	Spartanburg, S. C.
First Lt. Edward C. Voges,	Terre Haute	Camp Shelby, Miss.
Capt. Edward H. Wagenaar,	Shipshewana	Fort Harrison, Ind.
Lt. (s.g.) Robert K. Walker,	Indianapolis	Norfolk, Va.
First Lt. John C. Warren,	Bicknell	Camp Shelby, Miss.
Capt. Richard N. Washburn,	Rensselaer	Camp Shelby, Miss.
Capt. Wm. W. Washburn,	Lafayette	Randolph Field, Texas
First Lt. Herman L. Watson,	Evansville	Fort Knox, Ky.
First Lt. William W. Webb,	Indianapolis	Bowman Field, Ky.
First Lt. Joseph G. Weber,	Center Point	Fort Hayes, Ohio
First Lt. James A. Weir,	Evansville	Fort Harrison, Ind.
Bruce P. Weldy,	Hartford City	
First Lt. Harvey White,	Martinsville	Fort Jackson, S. C.
First Lt. James V. White,	Terre Haute	Ft. Oglethorpe, Ga.
Lt.-Col. Irving H. Willett,	Fort Wayne	Indianapolis, Ind.
First Lt. Fielding P. Williams,	Huntingburg	Schofield Barracks, Hawaii
First Lt. R. H. Williams,	Anderson	Fort Eustis, Va.
O. R. Wilson,	Shelbyville	
First Lt. Orley E. Wilson,	Elkhart	Fort Custer, Mich.
First Lt. Don Winters,	Indianapolis	
Major Don J. Wolfram,	Indianapolis	Camp Lee, Va.
First Lt. John W. Woner,	Linton	Huntington, W. Va.

Name	Home Address	Station
First Lt. Opal L. Wood,	Brazil	Ft. Oglethorpe, Ga.
Major J. E. Wyttenbach,	Indianapolis	Macon, Ga.
First Lt. Dale E. York,	Bloomington	Camp Grant, Ill.
Paul F. Zwerner,	Terre Haute	
Capt. Harold F. Zwick,	Decatur	Camp McQuaide, Calif.

INDIANA UNIVERSITY NEWS NOTES

Establishment by Mrs. William M. Louden, of Indianapolis, of the Lila B. Louden Scholarship Loan Fund with a contribution of $1,000 to aid students in the Indiana University School of Medicine in completing their training has been announced by Dean W. D. Gatch.

Mrs. Louden, who is an alumna of Indiana University and a former resident of Bloomington, in presenting the contribution in memory of her two sons to the School of Medicine's special war-time student-aid fund, declared, "The greatest need in Indiana today is to assist medical students in continuing their work so that they may not only meet the demand of the military services for doctors but also fill the gaps which the war will leave in the medical profession." The contribution supplements a previous gift donated for the same purpose.

Dean Gatch, in accepting the gift on behalf of the University, pointed out that with the war-acceleration of medical training more than 50 per cent of the students now in the school of medicine will need aid to continue their studies. The W. K. Kellogg Foundation, Battle Creek, Michigan, recently gave the Indiana University School of Medicine and the School of Dentistry each $10,000 for war-time student loans.

One hundred five of the one hundred seven new doctors who received their Doctor of Medicine degrees from Indiana University in May have accepted internship appointments throughout the United States. Seventy of the one hundred five doctors will be interns in Indiana hospitals during the coming year. The Indiana University hospitals in Indianapolis will have twenty-three, the Indianapolis City Hospital twenty-two, and the Methodist Hospital of Indianapolis fifteen. Other Indiana hospitals which will have Indiana University interns are: Epworth of South Bend, five; Ball Memorial of Muncie, two; St. Margarets of Hammond, St. Josephs of Fort Wayne and Methodist of Gary one each. The remaining Indiana University doctors will do their internships in Montana, Illinois, Michigan, Ohio, Pennsylvania, Wisconsin, New York, Kansas, Texas, West Virginia, Kentucky and California.

Those accepting internship appointments in the Indiana University Hospitals are: Wallace Bash, Warsaw; Margaret Ann Bassett, Thorntown; Mary Helen Beall, Rushville; Pauline Detraz, Vevay; Robert Dilts, Fort Wayne; George E. Godersky, Indianapolis; Lois S. Godersky, Indianapolis; Edgar A. Hawk, New Palestine; Claude Heritier, Columbia City; Joe H. Jewett, Carmel; W. Duane Jones, Indianapolis; Alexander Kahn, Indianapolis; James Katterjohn, Floyds Knobs; Forrest R. LaFollette, New Salisbury; John McBane, Fortville; John Mader, Indianapolis; Emile Ravdin, Evansville; James Roth, Boonville; Andrew Salm, Gary; Theodore Schlaegel, Jr., Indianapolis; Maurice Snyder, Liberty; Helen Van Vactor, Indianapolis; and Julius Wohlfeld, Indianapolis.

Interns going to the Indianapolis City Hospital are: John Alward, South Bend; Robert O. Bill, Indianapolis; Clyde G. Botkin, Muncie; Welbon Britton, Beech Grove; Franklin Bryan, Fort Wayne; Mary A. Craig, Indianapolis; Robert Craig, Gary; Martha Louise Crandall, Princeton; Oliver M. Hitch, Princeton; Everett L. Kalb, Indianapolis; William Karsell, Indianapolis; Jerome M. Korn, Gary; Donald McCartney, Fairmount; Charles F. Martin, Jr., Logansport; Robert Peacock, Dunkirk; J. Paxton Powell, Upland; Edmund C. Roll, Frankfort; John S. Schechter, Indianapolis; William Sholty, Lafayette; Victor Vollrath, Indianapolis; Richard Woolery, Bedford; and J. P. Worley, Indianapolis.

The following will be at the Methodist Hospital in Indianapolis: Arnold Bachmann, Cambridge City; John C. Brink, Gary; Harold Burdette, Roachdale; Robert Dilts, Fort Wayne; Charles Green and Myron Green, Plainfield; Oscar D. Havens, Cicero; William Kurtz, Indianapolis; Frank McDonald, Linton; Richard C. Pryor, Indianapolis; Faye G. Sheeley, Chesterton; David Smith, Indianapolis; Robert Switzer, Bloomington; Roger F. Whitcomb, Knightstown; and Charles Williams, Hartford City.

The Epworth Hospital at South Bend will have Otis R. Bowen, Crown Point; Colin Elliott, Middlebury; Frederick Kuhn, Plymouth; Salvo Marks, Hammond; and Richard Buckingham, Indianapolis.

Other appointments are as follows: Helen M. Sissons, Pendleton, and Homer Streib, Marion, Ball Memorial Hospital, Muncie; Guy Ingwell, North Judson, St. Margaret's Hospital, Hammond; John Nill, Fort Wayne, St. Joseph's Hospital, Fort Wayne; Faye G. Sheeley, Chesterton, Methodist Hospital, Gary; Albert Applegate, Frankfort, Murray Hospital Clinic, Butte, Montana; J. B. Bennett, Warren, Wesley Memorial Hospital, Chicago; J. Harman Bjorklund, Colorado General Hospital, Denver; George Bloom, Middlebury, United States Public Health Service; Joseph Buchmeier, Indianapolis, Henry Ford Hospital, Detroit; Merle Bundy, Salem, United States Public Health Service; Paul Burns, Poneto, Springfield City Hospital, Springfield, Ohio; Robert Cannon, Hammond, United States Public Health Service; George Compton, Indianapolis, Cleveland City Hospital; Joseph Davis, Marion, Philadelphia General Hospital; Pierre De Lawter, Indianapolis, United States Public Health Service; Forrest Denny, Madison, Wisconsin General Hospital, Madison, Wisconsin; Robert Fenneman, Evansville, Grasslands Hospital, Valhalla, New York; David Gaulke, Anderson, University of Kansas Hospital, Kansas City, Kansas; Raymond Getz, Jr., Fort Wayne, Station Hospital, Fort Sam Houston, Texas; Richard Halfast, Indianapolis, Springfield (Ohio) City Hospital; James Humphrey, Hammond, Butterworth Hospital, Grand Rapids, Michigan; Robert S. Jordan, Jr., Indianapolis, United States Army, Fort Sam Houston, San Antonio, Texas; Martin Krajac, Indianapolis, Henry Ford Hospital, Detroit, Michigan; C. Karl Kuehne, Jr., South Bend, Butterworth Hospital, Grand Rapids, Michigan; Charles Latshaw, Carlisle, Louisville City Hospital; Ben Leming, Topeka, Springfield (Ohio) City Hospital; Griffith Marr, Columbus, Navy Hospital; Brooker Masters, Plymouth, Edward W. Sparrow Hospital, Lansing, Michigan; Thomas O. Middleton, Ridgeville, University of Pittsburgh Medical Center; Edward Muentzer, Vincennes, Charleston General Hospital, Charleston, West Virginia; Lullus Muller, Fowler, William J. Seymour Hospital, Eloise, Michigan; Horace Horton, Plainville, Lima Memorial Hospital, Lima, Ohio; Warren Polhemus, Anderson, United States Public

Health Service; John Rieder, South Bend, United States Navy; Albert Ritz, Evansville, St. Joseph's Infirmary, Louisville; Clyde Sussman, Hartford City, Letterman General Hospital, San Francisco; Frank Tinsley, Indianapolis, Station Hospital, Fort Sam Houston, Texas; Harlan H. Tyner, Indianapolis, United States Public Health Service; and John B. Westfall, Lebanon, Letterman Hospital, San Francisco, California.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

May 10, 1942.

Roll call showed the following present: C. A. Nafe, M.D., chairman; E. O. Asher, M.D.; M. A. Austin, M.D.; C. H. McCaskey, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guest, H. M. Baker, M.D., chairman of the Committee on Medical Education and Hospitals.

The statements of receipts and expenditures for March and April for the association committees and THE JOURNAL were approved.

Membership Report

Number of members May 9, 1942....3114	(110 hon. mems.) (185 in service)
Number of members May 9, 1941....2985	
Gain over last year	129
Number of members Dec. 31, 1941....3228	

Treasurer's Office

The treasurer reported that two $1,000 U. S. Savings Bonds, Defense Series G, were purchased on March 30, 1942.

1942 Annual Session at French Lick, September 29 and 30 and October 1, 1942

Commercial Exhibit

(a) 29 spaces sold; 5 to be sold.

(b) Application for space from Ortho Products, Inc., Linden, N. J., approved upon the motion of Dr. Austin, seconded by Dr. McCaskey.

Scientific Program. Suggestion of Dr. Province in regard to a banquet speaker again brought to the attention of the committee. The committee was of the opinion that Dr. Austin should select the banquet speaker, who probably should be an entertainer or a speaker in some scientific field allied to medicine, or some eminent authority upon the war, rather than someone from political life.

Dr. L. Fernald Foster, secretary, and William J. Burns, executive secretary of the Michigan State Medical Society, will attend the French Lick meeting. Mr. Burns asked that Doctor Foster be placed on the program. He will talk upon a medical economic subject.

Legislative, Legal and Social Security Matters

National

Report made that the Senate Military Affairs Committee had recommended a bill favoring osteopaths, one paragraph of which reads as follows:

> "Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War be, and hereby is, authorized out of any moneys available for the War Department . . . to provide for the employment of interns *who are graduates of or have successfully completed at least four years' professional training in reputable schools of medicine or osteopathy* in the Medical Department at not to exceed $720 per annum."

J. W. Holloway, Jr., of the Bureau of Legal Medicine and Legislation of the American Medical Association, makes the following explanation in regard to this bill:

> "This authorization will represent permanent legislation. It does not make it mandatory that the War Department select interns from osteopathic schools and if the present high standards are maintained in the Medical Department, no such appointments will be made. The authorization, however, does constitute to a certain extent a Congressional viewpoint that osteopaths will construe as a recognition of their competency to serve in the Medical Corps of the Army. This implication will be pointed out by the osteopaths not only in connection with any future Congressional demands they make but also in connection with state legislation that they may sponsor."

Federal Income Tax on Accounts Receivable. An attempt is being made in the Ways and Means Committee of the House to pass an amendment to the present federal income tax statutes which would do away with the inequities that now burden a taxpayer who makes his returns upon a cash receipts and disbursements basis. At the present time "income accrued to the date of a decedent's death must be included in the return for his last income tax period. The 'bunching up' of income that may occur under this provision can work a severe hardship, as the income of the decedent may in effect be artificially raised to a much higher surtax bracket. Under this provision a doctor's share of the fees from cases pending at his death must be included in the income tax return for the year in which his death occurs even though such fees may not be collectable until years later."

The proposed amendment seeks to eliminate the present method of taxing such income in favor of a method that taxes the income of persons who actually receive it. The tax adviser to the Secre-

tary of the Treasury, Randolph Paul, who recommends the passing of the proposed amendment upon behalf of the Treasury Department, states:

"Thus, the income would be made taxable to the estate or to the heir or legatee as the case may be. It is also suggested that this change be made retroactive to all open years under proper safeguards insuring payment of the tax by the recipients of income in such years."

Contact has been made with Representative John W. Boehne from Indiana, who is a member of the Ways and Means Committee, who expressed himself as being wholeheartedly in favor of such an amendment.

Local

Recommendation made that full citizenship be required for licensing physicians in Indiana and that the House of Delegates approve a ruling that all candidates for licensure be full citizens. This action was taken upon the motion of Dr. McCaskey, seconded by Dr. Austin.

The Executive Committee corrected a statement which appeared in the minutes of the March 15 meeting of the committee to read as follows:

"Only *full* American citizens be eligible to take examinations given by the State Board of Medical Registration and Examination."

Organization Matters.

Dr. E. L. Libbert, chairman of the Committee on Physical Therapy, has left for the Army. The Executive Committee regrets the loss of Doctor Libbert, who, as chairman, contributed to the outstanding service rendered by the Committee on Physical Therapy. Doctor Austin appointed Dr. N. H. Prentiss, who has served as a member of the committee since 1940, to take Doctor Libbert's place as chairman of the Committee on Physical Therapy.

Dr. Donald A. Covalt has resigned as chairman of the Committee on Civic and Industrial Relations as he is entering the Medical Corps of the Army Air Force. Dr. Austin appointed Dr. M. C. Topping, a member of the committee, to fill Doctor Covalt's unexpired term as chairman.

Letter received from Dr. Arthur G. Blazey, Washington, Indiana, that he had been ordered to active duty with the Army and, hence, would have to resign as a member of the Committee on Medical Education and Hospitals. Dr. Austin named Dr. E. N. Kime to take Doctor Blazey's place on the committee for the remainder of the year.

The appointment of a successor to Dr. John S. Leffel, who had served as chairman of the Medical Relief Committee of the Indiana State Medical Association, was discussed by the committee. Several suggestions were made, among those mentioned being Dr. E. O. Asher, Dr. Claude Paynter, and Dr. Eugene Boggs. However, no individual was named definitely by the Executive Committee. (As there is to be a meeting on May 28 of the State Medical Aid Advisory Committee of the State Department of Public Welfare, on which committee Doctor Leffel served as representative of the medical association, it may be that Doctor Asher can serve temporarily in Doctor Leffel's place until a definite appointment is made.)

Medical Economics

Letter from Dr. Simon Reisler, which had been referred to Dr. D. A. Covalt, the chairman of the Civic and Industrial Relations Committee, was returned to the headquarters' office without action due to the fact that Doctor Covalt was leaving for the service. The Executive Committee referred the letter to Albert Stump, attorney for the association.

Report received that Dr. Samuel Kennedy attended the recent meeting of the United States Pharmacopoeial Association at Cleveland.

Fees in the Emergency. The subject of fees in general and of mileage fees in particular was discussed by the committee. With many physicians in military service, it is necessary that some communities be served by doctors living in nearby towns. If customary mileage fees are charged for such services, bills for home calls will be greatly increased. The committee discussed formally recommending that charges that have been customary in an individual community be maintained during the emergency, irrespective of the fact that the physician would serve that community from an adjoining community and ordinarily would charge a mileage fee. The committee feels that this is a serious problem and suggested that Doctor Austin write an editorial for THE JOURNAL, discussing the problem.

Special Voluntary Relief Fund. suggestion made that a recommendation be made to the House of Delegates providing for a voluntary relief fund to care for the families of any physicians who are in the armed services and who are members of the Indiana State Medical Association. This relief fund would be used as an aid in meeting emergencies arising from dire necessity brought on by the fact that the physician is in the armed services. The committee suggested that Doctor McCaskey work out this plan and perhaps present it in his report as president-elect to the House of Delegates.

Medical Relief

WPA reports for March and April received by the committee.

Correspondence with the secretary of the Clinton County Medical Society in regard to the relief setup in Clinton county brought to the attention of the committee. Representatives were invited to attend the Executive Committee meeting, but they did not appear.

Resolution passed by the Indiana State Department of Public Welfare Advisory Committee on Medical Aid in regard to Doctor Leffel's services brought to the attention of the committee. This resolution follows in part:

"RESOLVED, that the members of the Indiana State Department of Public Welfare Advisory Committee on Medical Aid, cognizant of

the civic and professional interests, the sincerity of purpose and tireless effort of Dr. John Leffel, express deep regret for his sudden and unexpected death. His competence to speak for the medical profession on the relationship between the profession and government relief agencies earned him the respect of the committee. His contribution to the progress made in the State Department in respect to administration of the medical aid relief is noteworthy. His is a personal as well as a professional loss to the committee."

Socialized Medicine

Letter from the American Medical Association regarding the socialization of medicine in Chile brought to the attention of the committee. This letter was given to one of the members to analyze and make a report at the next meeting of the committee.

Military Preparedness

War Program of Graduate Education. Dr. Herman Baker, chairman of the Committee on Medical Education and Hospitals, met with the Executive Committee to discuss a war program of graduate education. The committee suggested that Doctor Baker formulate a series of articles in regard to emergency medical care to appear in THE JOURNAL.

Officers' Recruiting Board. Speed-up program with the Officers' Recruiting Board discussed by the committee. Suggestion made that the councilors and members of the State Committee on Procurement and Assignment Service for Indiana be called together for a conference upon the speed-up program and the work of the Officers' Recruiting Board.

Defense Plant Worker. Letter from defense plant worker in regard to alleged practices of an individual physician in a defense plant brought to the attention of the committee. The committee felt that this was a matter which should be referred to the councilor of the district in which the defense plant is located.

Financial Aid in Connection with Procurement and Assignment Work. Letter received from Dr. Charles R. Bird, chairman of the Indiana Procurement and Assignment Service, in regard to additional work at the headquarters' office caused by the Procurement and Assignment Service. Doctor Bird's letter follows in part:

"At the conference in Washington of the Procurement and Assignment Service, the question was asked of each state chairman:

"a. Whether or not quarters were available for the Army Recruiting Board.

"b. Whether or not financial help would be asked by us in connection with Procurement and Assignment.

"We took the liberty of making quarters available in the room north of Mr. Hendricks' office. As to the question of financial help, the answer was that the matter would be taken up with the State Executive Committee.

"The additional work entailed by reason of the Indiana Procurement and Assignment Service increases the number of working hours of the personnel in Mr. Hendricks' office and intensifies their activities. The question is then, shall we ask for financial help in the way of a part-time employee? This does not imply that we actually would want an additional person, but that one of the two girls in Mr. Hendricks' office might be designated to receive an amount allocated for such a purpose, which amount could be divided as between the two secretaries. The salary of a junior typist under Civil Service is $1,260 a year; a designated one-third time employee, therefore, in dollars might amount to $420 a year.

"It is requested that the committee take such action as it deems wise and necessary and advise Mr. Hendricks or Dr. Bird so that the matter may be formally disposed of as related to Colonel Seeley's office.

"A filing cabinet was asked for."

Upon the motion of Doctor Austin, seconded by Doctor McCaskey, the committee went on record that at the present time the state association does not accept federal funds for procurement and assignment work, but that a detailed memorandum be kept of the extra work done at the headquarters office in carrying on the activities of procurement and assignment service.

The committee discussed the problems that arise in regard to the employment of physicians by industrial war plants. In some instances substandard physicians are being employed by these plants due to the fact that the better physicians often refuse to work at the contract price set by these plants. In order to insure the best medical care possible, the heads of these war industrial plants should make their approach through the local county medical societies.

Future Medical Meetings

Annual Meeting of the Indiana Pharmaceutical Association. Doctor Austin was named by the committee to represent the state medical association at the annual meeting of the Indiana Pharmaceutical Association. The Indiana Pharmaceutical Association had requested that someone be invited to appear upon the program and talk upon the subject of how the pharmaceutical and the medical profession may cooperate in the interest of public welfare.

Group Hospitalization and Medical Service Plans

Correspondence with Nellie G. Brown, chairman of the Committee on Hospital Service of the Indiana Hospital Association, and the state headquarters' office in regard to hospitalization plans in Indiana brought to the attention of the committee. The Executive Committee feels that at the present time the full attention of the profession of Indiana is and should be centered upon winning the war, and that such questions as group

hospitalization should wait until after the national emergency. It is the sentiment of the medical profession of Indiana to put first things first, that is, to devote the entire attention of the profession at this time toward winning the war.

CIO Correspondence. Letter signed by J. B. Mansfield, Chairman, Committee for Hospitalization Plan, CIO, brought to the attention of the committee. The letter was answered stating that the Permanent Study Committee on Health Insurance of the Indiana State Medical Association would be glad to discuss the suggestions with Mr. Mansfield.

Medical Service Plans. Clippings and announcements of various medical service plans brought to the attention of the committee.

Report made upon the recent conference on medical service plans held at Chicago.

State Conference on Social Work

Membership in the State Conference on Social Work approved.

The Journal

The Executive Committee approved handling the matter of discounts as suggested by Mr. Sandberg of the Cooperative Medical Advertising Bureau.

Reprints. The committee feels that duplicates of reprints should be made available by The Pauley Company for THE JOURNAL Office.

Necrology. The committee feels that Doctor Maple should get all the names that he can in his necrology report whether or not they are members of the state medical association, as long as they are regularly licensed M.D's.

There being no further business, the meeting was adjourned.

SPECIAL PROCUREMENT AND ASSIGNMENT SERVICE MEETING OF THE COUNCIL

May 17, 1942.

Meeting called to order by Dr. Floyd T. Romberger, chairman of the Council, at 12:30 Sunday, May 17, 1942, at the Columbia Club, Indianapolis.

Roll call showed the following present:

Councilors:

First District—I. C. Barclay, Evansville
Second District—H. C. Wadsworth, Washington
Third District—W. H. Garner, New Albany
Fourth District—J. C. Elliott, Guilford
Fifth District—A. M. Mitchell for O. O. Alexander, Terre Haute
Sixth District—Samuel Kennedy, Shelbyville
Seventh District—C. J. Clark, Indianapolis
Eighth District—E. H. Clauser, Muncie
Ninth District—F. T. Romberger, Lafayette
Tenth District—N. K. Forster, Hammond
Eleventh District—Ira Perry, North Manchester
Twelfth District—H. L. Murdock, Fort Wayne
Thirteenth District—George F. Green for Alfred Ellison, South Bend

Procurement and Assignment Service for Indiana:

C. R. Bird, Indianapolis, chairman.
C. C. Crampton, Delphi.
W. M. Miley, Anderson.
A. G. Chittick, Frankfort.
Major Glen Ward Lee, Indianapolis, Medical Director, Indiana Selective Service System.

Executive Committee:

C. A. Nafe, Indianapolis, chairman.
E. O. Asher, New Augusta.
M. A. Austin, Anderson, president.
E. M. Shanklin, Hammond, editor of THE JOURNAL.

Marion County Procurement and Assignment Service:

John R. Newcomb, Indianapolis, chairman.
J. C. Daniel, Indianapolis.

Guests:

E. L. Henderson, M.D., Louisville, Ky., chairman, Fifth Corps Area Committee, Procurement and Assignment Service.
Col. Robinson Hitchcock, Indianapolis, director, Selective Service System of Indiana.
Major Lewis Cellio, representing Surgeon General, Fifth Corps Area.
Major V. L. Eikenberry, Vincennes, president, Medical Officers' Recruiting Board.
Capt. N. R. Booher, Indianapolis, representing Surgeon General's Office.
F. S. Crockett, M.D., Lafayette, past president, Indiana State Medical Association.
Charles W. Myers, M.D., Indianapolis, superintendent, Indianapolis City Hospital.
Clarence Hess, Indianapolis, representing Indiana Hospital Association.
John W. Ferree, M.D., Indianapolis, State Health Commissioner and member of Administrative Council of Civilian Defense in Indiana.
H. T. Berkey, D.D.S., Fort Wayne, Dental Chairman, Indiana Procurement and Assignment Service.

Henderson Explains Procurement and Assignment

Following the preliminary remarks by the chairman, Doctor Romberger, Dr. Charles R. Bird introduced Dr. E. L. Henderson of Louisville, Kentucky, chairman of the Fifth Corps Area Committee, Procurement and Assignment Service. Doctor Henderson outlined the purposes of Procurement and Assignment Service and told of the necessity for the immediate commissioning of physicians. Ten thousand are needed by July 1 and 16,000 by January 1 for service with the United States Army, including the Air Corps. Doctor Henderson said that every physician in Kentucky had been classified by the State Procurement and Assignment Committee of that state as being available or unavailable. Following Doctor Henderson's talk and the introduction of Colonel Robinson Hitchcock of Indianapolis, director of the Indiana Selective Service System, a general discussion of the entire Procurement and Assignment Service System in Indiana resulted. Dr. Newcomb told how the program is being carried out in Marion County.

Medical Officers' Recruiting Board Schedule

Captain N. R. Booher of Indianapolis, repre-

senting the Surgeon General's Office, and a member of the Indiana Medical Officers' Recruiting Board, explained the method of procedure followed by the Board and presented the following schedule of board meetings to be held throughout the state:

May 11 and 12, District 7, 415 Federal Bldg., Indianapolis.
May 13, District 3, New Albany.
May 14, District 4, Lawrenceburg.
May 15, District 6, Richmond.
May 16 and 17, District 7, Indianapolis.
May 18 and 19, District 10, Gary.
May 20 and 21, District 13, South Bend.
May 22, District 12, Fort Wayne.
May 23, District 6, Richmond (return visit).
May 24, District 4, Lawrenceburg (return visit).
May 25, District 3, New Albany (return visit).
May 26, District 2, Vincennes.
May 27 and 28, District 1, Evansville.
May 29, 30 and 31, District 7, Indianapolis.
June 1, District 10, Gary (return visit).
June 2, District 13, South Bend (return visit).
June 3, District 12, Fort Wayne (return visit).
June 4, District 11, Kokomo.
June 5, District 9, Lafayette.
June 6, District 5, Terre Haute.
June 6, District 7, Indianapolis.

Procedure for Meetings

The following program of procedure for setting up these meetings was adopted:

(1) The councilor of each district is responsible for the physical arrangements for the meetings which are held in his district.

(2) Cards shall be sent to every physician in a district, telling him when the Board will be in session in the district and asking him to attend if he has any questions in regard to Procurement and Assignment Service and desires to be commissioned in the Army.

(3) In addition to this, each county Procurement and Assignment Service chairman is to supply the names of physicians who are available to the State Procurement and Assignment Service office.

(4) As the urgent need is for men under 37 and as practically every physician in the state under 37 who is physically fit will be in active service, such men must attend these Board meetings. Physicians between 37 and 45 who have been classified as available may attend these meetings to obtain information and, if they see fit, volunteer their services for immediate, active duty in the Army.

(5) Lists of physicians who have volunteered their services and have not yet received their commissions are to be supplied to the Directing Board so contact with such physicians may be made. Each of these physicians is to be notified of the Board meeting and of the fact that he may be commissioned up to captain or recommended for immediate commissioning for higher grades by the Medical Recruiting Board.

(6) Publicity in regard to meetings in each

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

In addition to our Professional Liability Policy for private practice we issue a special

MILITARY POLICY

to the profession in the Armed Forces at a

REDUCED PREMIUM

THE MEDICAL PROTECTIVE COMPANY
OF
FORT WAYNE, INDIANA

Disabilities occasioned by war are covered in full

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

PHA OMAHA INSURANCE PCA OMAHA

For ethical practitioners exclusively
(57,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $32.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $64.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $96.00 per year

40 years under the same management
$2,220,000 INVESTED ASSETS
$10,750,000 PAID FOR CLAIMS
$200,000 deposited with State of Nebraska for protection of our members
Disability need not be incurred in line of duty—benefits from the beginning day of disability
Send for applications, Doctor, to
400 First National Bank Building Omaha, Nebraska

district is to be sent to the leading papers of each district preceding the Medical Officers' Recruiting Board meetings. This publicity is to be sent out from the headquarters' office.

(7) If possible, former service men who are known to the younger men in the county are to work in conjunction with the Officers' Recruiting Board in each district. These men will be able to answer questions asked by individual physicians and leave the Recruiting Board free to do the necessary work of recruiting.

Foreign Born and Refugee Physicians

Report made that some hospital superintendents are filling up their institutions with foreign born and refugee physicians when regular physicians are called into service, thus enabling such physicians "to dodge military service."

Care of Industrial and Civil Population

Doctor Henderson spoke of the fact that everybody should receive proper medical care but "People must learn that they can't call the doctors out all hours of night for minor illnesses. The public must learn to get along with fewer doctors. Younger men in industrial plants should be supplanted by older men in order that these younger men may be made available for military service."

THOMAS A. HENDRICKS,
Executive Secretary.

LOCAL SOCIETY REPORTS

Adams County Medical Society members held a dinner meeting at the Rice Hotel, at Decatur, on May seventh. The chief topic of the meeting concerned the relationship of the county welfare program to that of the medical services during war times.

* * *

Boone County Medical Society members held their April meeting at the Witham Hospital, at Lebanon, on the thirtieth. Dr. H. S. Leonard, of Indianapolis, was the speaker of the evening.

* * *

Clay County Medical Society members held a meeting at the Clay County Hospital, at Brazil, on May twenty-sixth. Dr. Lyman T. Meiks, of Indianapolis, spoke on "Kenny Treatment of Poliomyelitis." Twelve members and eleven guests were present at this meeting.

* * *

Clinton County Medical Society members met in the City Armory, at Frankfort, on May twelfth. Drs. Larue Carter and Norman H. Booher, of Indianapolis, and Major Samuel F. Seeley, of the United States Medical Corps, were the guest speakers of the evening.

* * *

Delaware-Blackford County Medical Society members held a meeting at the Ball Memorial Hospital, at Muncie, on May nineteenth. Thirty-three members and three guests were present.

Elkhart County Medical Society members met at Hotel Elkhart, Elkhart, on May seventh in a joint meeting with the Elkhart Dental Society. Eight members and nine guests attended this meeting.

* * *

Fountain-Warren County Medical Society members held a business meeting at the Mudlavia Hotel, at Kramer, on May seventh. A dinner preceded the meeting. Twelve members were present.

The June meeting was held at the Methodist Church in Covington on June fourth. Dr. M. A. Austin, of Anderson, was the principal speaker of the evening.

* * *

Greene County Medical Society members met at the Freeman County Hospital, at Linton, on May fourteenth. Dr. Daniel Barrett, of the United States Public Health Service, was the speaker of the evening. His subject was "Communicable Diseases." Slides were shown. Thirteen members attended the meeting.

* * *

LaPorte County Medical Society members met at the Spaulding Hotel, at Michigan City, on May twenty-first. Dr. Andrew McNally, of Chicago, was the speaker. Thirty members were present.

* * *

Northeastern Indiana Academy of Medicine members held a meeting on April thirtieth at the Sacred Heart Hospital in Garrett. Dr. Maurice Buckles and Dr. C. D. Enfield, of Louisville, were the guest speakers.

* * *

Randolph County Medical Society members met at the Beeson Park Club House, at Winchester, on May eleventh. Dr. N. H. Prentiss, of Fort Wayne, was the speaker of the evening. Fourteen members were present.

* * *

Rush County Medical Society members held a meeting at the Lollis Hotel, at Rushville, on May fourteenth. Dr. Francis Mills, of New Castle, was the guest speaker. Nine members enjoyed a dinner before the meeting.

* * *

St. Joseph County Medical Society members held a golf meet and dinner meeting at the South Bend Country Club on May twenty-seventh. One hundred and sixty attended this meeting.

* * *

Tippecanoe County Medical Society members met at the Lafayette Country Club, Lafayette, on May twelfth. Dr. Norman F. Miller, of the University of Michigan at Ann Arbor, read a paper on "Cervix in Health and Disease." Forty-nine members were present at this meeting.

* * *

Wayne-Union County Medical Society members held a dinner meeting at the Leland Hotel, at Richmond, on May fourteenth. Dr. Richard Appel, of Indianapolis, was the speaker of the evening. Thirty-seven physicians were in attendance at this meeting.

Whitley County Medical Society members met at the Tasty Shop, at Columbia City, on May twelfth. Dr. Charles J. Cooney, of Fort Wayne, spoke at this meeting.

SECOND DISTRICT MEDICAL ASSOCIATION

The Second Councilor District members met in Washington, at 4:00 P.M. Tuesday, June second. At 5:00 P.M. Dr. James Collins, of Indianapolis, talked on "X-ray Films and Their Diagnosis." At 6:00 P.M. a real Hoosier dinner was held; and at 7:30 P.M. Dr. C. J. Clark, of Indianapolis, spoke on "The Cardiac as a Surgical and Obstetrical Risk." At 9:00 P.M. a business session was held. At this time Dr. H. C. Wadsworth was re-elected councilor and Dr. J. S. Brown was re-elected secretary.

Dr. J. R. Crowder, of Sullivan, then requested the attention of the chair and, following a short introduction, proposed that The Second District Association endorse Dr. J. T. Oliphant, of Farmersburg, as President of the State Association—carried unanimously.

Meeting adjourned at 9:45 P.M.

J. S. BROWN, *Secretary.*

ELEVENTH DISTRICT MEDICAL SOCIETY MEETING

Eleventh Councilor District members held their regular semi-annual meeting at Flora on May twentieth. The following officers were elected:

President—L. E. Jewett, M.D., Wabash.

Secretary-Treasurer—O. G. Brubaker, North Manchester.

Councilor—I. E. Perry, North Manchester, re-elected.

Dr. H. Allison Miller, of Marion, spoke on "Non-Surgical Treatment of Pelvic Conditions"; and Dr. J. O. Ritchey, of Indianapolis, discussed "Non-Tubercular Lesions of the Chest." Al. H. Wynkoop, of Lebanon, was the banquet speaker.

The next meeting will be held in Peru, October 21, 1942.

TWELFTH COUNCILOR DISTRICT MEDICAL MEETING

The regular annual meeting on June 11, 1942, of the Twelfth Medical District Society was particularly outstanding. Major General Louis B. Hershey, National Director of the Selective Service System, was the speaker at the evening session. "War, Manpower and Medicine," was his subject. His remarks were of sufficient importance that they were quoted in full the next day in all the national news-gathering associations' reports, and excerpts from it were given by all of the prominent radio commentators during their periods. General Hershey was introduced to the group by United States Senator Raymond E. Willis, of Angola.

State President M. A. Austin, M.D., of Anderson, read his special delivery air mail reply to National Security Director Paul V. McNutt's address made before the convention of the American Medical Association in session at Atlantic City. It was moved and seconded that the Society go on record as approving Dr. Austin's letter. It was further ordered that the Secretary be instructed to send Director McNutt a telegram apprising him of the sentiment of the Society.

Drs. Harvey Murdock and Ernest Carlo, of Fort Wayne, reviewed the outstanding points made during the recent War Gas Course which was given in Cincinnati. Their remarks were supplemented by numerous slides illustrating the various conditions found in medical gas warfare.

The second paper of the afternoon session was given by Lieutenant Colonel E. W. Wilson, U.S.A. M.C., Commander of the medical department at Baer Field, Fort Wayne, Indiana. His subject was "Problems of the Flight Surgeon." In his paper the numerous tests for picking the ideal aviator were brought out and the reasons for their use were discussed. Many questions were asked the speaker, thus giving evidence of the great interest in that part of the national war effort.

Prominent personages present besides Senator Willis were: Major Glen Ward Lee, U.S.A.M.C., State Medical Director for Selective Service; Colonel Hitchcock, State Director of Selective Service; Lieutenant King (JG) U.S.N., and most of the members of the various draft boards of Allen County. A considerable number of fellow practitioners from neighboring Ohio and surrounding councilor districts also were present. The total attendance was approximately one hundred and seventy-five. Many of the wives attended the dinner and heard General Hershey's remarks.

President Ralph W. Elston presided at the sessions. The new officers elected are B. W. Pence, M.D., Columbia City, President; Walter E. Kruse, M.D., Fort Wayne, Vice-president; and S. R. Mercer, M.D., was re-elected Secretary-treasurer.

S R.. MERCER, M.D., *Secretary-Treasurer,*
Twelfth District Medical Society.

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled. Write for general price list.

Chemists to the Medical Profession. IN 7-42

THE ZEMMER COMPANY

ZEMMER

Oakland Station, Pittsburgh, Pa.



The chemical composition of Karo in glass and in tins is identical

Non-Allergic Formulas

•

KARO is non-allergic even in corn-sensitive infants; it may be used safely in formulas prepared from evaporated, goat's or vegetable milk.

•

Free to Physicians

"Infant Feeding Manual For Physicians" is a concise, helpful monograph containing specific information and tested Karo feeding formulas. Sent postpaid.

•

Please Write Medical Department

CORN PRODUCTS REFINING CO.

17 Battery Place, New York, N. Y.

Books

SYNOPSIS OF MATERIA MEDICA, TOXICOLOGY, AND PHARMACOLOGY. Second Edition. By Forrest Ramon Davison, B.A., M.Sc., Ph.D., M.B., Medical Department, The Upjohn Co., Kalamazoo, Michigan. 695 pages. 45 illustrations including 4 in color. Fabrikoid. Price $5.75. The C. V. Mosby Company, St. Louis, 1942.

REVIEWED

ENCEPHALITIS—A Clinical Study. By Josephine B. Neal, M.D., Sc.D., F.A.C.P., Clinical Professor of Neurology, College of Physicians and Surgeons, Columbia University. 563 pages, with 16 illustrations. Cloth. Price $6.75. Grune & Stratton, Inc., New York, 1942.

For all those who are interested in the subject of encephalitis, this should be an important reference book. It is the fourth of a series dealing with the studies of the Matheson Commission. This group was started and supported through the interest and generosity of William J. Matheson, a noted chemist. Dr. Matheson himself being a victim of epidemic encephalitis, he was anxious to promote all endeavors that would lead to a better understanding of this disease.

Dr. Neal, herself, has spent many years in the study of encephalitis of the so-called "lethargic" type, and shows great understanding as well as experience. Her collaborators furnish authoritative discussions on particular phases.

It should not be understood that epidemic encephalitis is the only kind of this nervous system disorder, for it is only one of numerous kinds of brain inflammations. The various categories are given in great detail and are thoroughly delineated. From the many types of encephalitis one may mention the following: tick-borne encephalitis, lymphocytic choriomeningitis, toxoplasmic enchephalomyelitis, those after acute exanthems and common contagious diseases, rheumatic fever and louping-ill. Even epidemic encephalitis itself, known from the late World War I days, turns out to be a complicated thing of comprehensive classification.

There are a number of interesting aspects of encephalitis; these are discussed under anatomic changes, surgery, behavior problems and treatment. In discussing the treatment for Parkinsonism, the method of administering Bulgarian root extract is discussed in detail.

H.B.

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, April, 1942

DISEASES	*Apr. 1942*	*Mar. 1942*	*Feb. 1942*	*Apr. 1941*	*Apr. 1940*
Tuberculosis Primary	6	8	5	0	0
Tuberculosis, Active	115	78	66	70	146
Tuberculosis, Arrested	5	6	11	0	0
Chickenpox	460	503	439	487	309
Measles	573	401	265	4715	105
Scarlet Fever	450	578	571	570	766
Smallpox	3	2	1	2	6
Typhoid Fever	3	5	6	1	9
Whooping Cough	181	153	182	128	135
Diphtheria	22	34	29	48	16
Influenza	97	160	136	49	72
Pneumonia	80	116	79	78	59
Mumps	161	141	68	238	552
Poliomyelitis	2	3	2	0	0
Cerebro-Spinal Meningitis	3	2	3	1	5
Pneumococcic Meningitis	1	0	0	0	0
Undulant Fever	4	2	2	0	4
Vincent's Angina	1	3	0	0	0
Glandular Fever	1	0	0	0	0
Rheumatic Fever	1	0	0	0	0
Rubella	80	61	9	313	0

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 AUGUST, 1942 NUMBER 8

HEALTH IN INDUSTRY

MORRIS FISHBEIN, M.D.

EDITOR, THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
CHICAGO, ILLINOIS

The winning of a war is a race for men, for food and for materials. This means that the war must be won on the industrial front as well as on the battle front. An epidemic striking one of our large factories or plants and incapacitating any considerable number of men would be far worse than a bomb planted at the center of State and Madison Streets in Chicago or on Washington and Illinois Streets in Indianapolis. The problem of keeping men at work at machines physically fit and mentally contented is just as important as the problem of maintaining men at the battle front physically fit and mentally contented.

One of our first problems is to build industrial medicine to a point which it simply must reach if we are to win the war. Those who are associated with full-time industrial medicine know that it involves many factors. It involves examination of the worker prior to employment, not for the protection of his employer but primarily for the protection of the worker. It involves also a study of the nutrition of the worker and his habits of life, control of his exposure in the plant to gas and flying particles, the guarding of machinery, the protection of the eyes, and the exhaustion of dust and similar materials. It involves some study of the worker's home and of the manner in which the work is carried on in the home, particularly if the worker is a woman who is trying to fill two jobs at the same time. In Great Britain a rule was soon established by the Ministry of Health that makes it compulsory for every industrial plant to have an industrial physician at least part-time. This is recognition of the importance of health in industry.

We have in the United States approximately ten thousand doctors who have listed themselves as either specialists in industrial medicine or part-time specialists in industrial medicine. From 85 to 90 per cent of all industrial medicine in this country is carried on by general practitioners who give part of their time to industrial medical services.

At present a number of agencies are co-operating in developing a solution for the problems of industrial health. These include the Council on Industrial Health of the American Medical Association, the Subcommittee on Industrial Health of the Health and Medical Committee of the Office of Defense Health and Welfare, the Division of Industrial Hygiene of the United States Public Health Service, and the Committee on Industrial Health of the Division of Medical Sciences of the National Research Council. The problem concerns also the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, which is charged with finding physicians for specific needs during the emergency. These agencies are co-operating in their considerations and already great progress has been made in developing plans for industrial medical units, lists of available personnel, and similar subjects. At the meeting of the House of Delegates of the American Medical Association in Atlantic City a resolution was passed urging the preparation of a special bulletin to be concerned with the health of women in industry.

A special problem of the day is the determination of methods by which medical care may be supplied to the civilian populations in the new population centers surrounding new industries developed by the war. No one can say at this time whether or not such communities will be permanent. Certainly the physician who undertakes their medical care must do so on a temporary basis. Various means have been suggested for meeting these needs, including medical service plans with contributions by employers, employees and in some instances, it has been suggested, also by the government. Other methods proposed have been full-time medical

services administered by employers, employee associations, the United States Public Health Service, or the Army. The problem is giving serious concern to important bodies, including the American Medical Association and various federal agencies, such as the Federal Security Administration, the Office of Defense Health and Welfare, and the War Man-power Commission—all of which are headed by Mr. McNutt. Obviously the matter is just as much, if not more, the concern of the medical profession than of any other agency. Every physician will do well to begin thinking right now as to just what part the medical profession may play in a changing world in solving this problem.

SOME OCCUPATIONAL DISEASES ASSOCIATED WITH THE WAR PRODUCTION PROGRAM

LOUIS W. SPOLYAR, M.D.
Chief, Bureau of Industrial Hygiene, Indiana State Board of Health
JOHN W. FERREE, M.D.
State Health Commissioner
INDIANAPOLIS

With the present expansion of our war production program and the conversion of industry from production of consumer goods to the exclusive production of essentials of war, we find an increase in industrial absenteeism due to illness. Normally 350 million man-days[1] a year, or one million work years a year, are lost due to all types of disability in industry. This figure will increase as new chemicals are introduced, work schedules increased, older workers and women are employed, and staggered shifts are inaugurated. The present estimated time-loss is 400 million man-days a year.

If the President's order of 185,000 airplanes, 120,000 tanks, 55,000 anti-aircraft guns, and 18,000,000 tons of shipping is to be filled within the next two years, industrial absenteeism will have to be held to the irreducible minimum and kept there. The estimated 400 million man-days lost would build 165,000 tanks or 50 ships of the North Carolina class. Thus one can readily see that industrial absenteeism can be one of the most subtle of saboteurs.

This superindustrial production program has created new manufacturing processes with attendant new occupational diseases, and similarly has accelerated old processes and thereby accentuated old exposures and their attendant occupational diseases.

The task of controlling these diseases and thereby maintaining production is admittedly a large one, but is in no sense hopeless for these diseases can be controlled by application of medical and engineering knowledge developed since the last war. As a matter of fact, Indiana medicine anticipated this job as early as March, 1941. At that time Doctor Shanklin stated editorially,[2] "*The Journal*, fully sensing the grave importance of National Defense and the role which the profession of medicine is to play therein, has in preparation a special Industrial Health Number, scheduled for April. . . . Practically every phase of what-to-do-about-it will be presented." *The Journal* did just that. The basic principles discussed then can be put to use now.

To be forewarned is to be forearmed, and it is with this thought that the following discussion of potential or actual occupational diseases incident to our present war effort is presented.

RADIUM POISONING

With the tremendous expansion of aircraft production, numerous large and small plants are, and will be, painting airplane dials, gauges and clocks with radioactive luminous paints. For the most part these plants have little or no experience with this process and do not fully appreciate its dangers. Luminous paints generally contain phosphorescent zinc sulphide and are usually activated by radium. The quantity of radium varies from one part in 4,000 to one part in 200,000.[3] Radium and dial painting produced the epidemic of radium poisoning in this country following the first World War.

This operation, if not controlled properly, may eventually produce a severe anemia,[4] decalicification and absorption of bone,[5] and malignant tumors of the bone[4] and lung.[6] This pathology is due to the deposition of the radioactive material in the skeleton and the inhalation of the gaseous radioactive emanations of radium, namely radon. The pathology usually associated with the epidemic of the previous war was the ulcerative necrosis of the mandible. This was due to the habit of pointing brushes by wetting the brush with the lips.

[1] Bloomfield, J. J.: Industrial Hygiene in the National Defense Program, *An. Int. Med.* **15**: (Aug.) 1941.

[2] Editorial: *Jour. Ind. St. Med. Assn.* (March) 1941.

[3] Lind, S.: The Chemical Effects of Alpha Particles and Electrons, Rev. Chem. Catalog Company, 2nd Ed., New York, 1928.

[4] Martland, H. S.: The Occurrence of Malignancy in Radioactive Persons, *Am. Jour. of Cancer* **15**: 2435-2516, (Oct.) 1931.

[5] Martland, H. S.: Occupational Poisoning in Manufacture of Luminous Watch Dials, *Jour. A.M.A.* **92**: 466-473, (Feb.) 1929.

[6] Teleky, L.: Occupational Cancer of the Lung, *Jour. Ind. Hyg. & Tox.* **19**: 73-85, (Feb.) 1937.

Heretofore Indiana was free of this industry; however, under the present emergency this work is being done in this state. Therefore a new industrial disease is added to the already long list of occupational diseases seen in Indiana industries.

This operation can be done safely provided the work bench is properly ventilated, dangerous practices by the employees are eliminated, and periodic medical examinations are performed. Details on ventilation and essential regulations necessary to control exposure to radium in the dial painting industry can be found in the National Bureau of Standards Handbook H27.[7]

PUBLIC HEALTH OFFICER AND PHYSICIAN MUST WORK TOGETHER

J. G. TOWNSEND, M.D.

Chief, Division of Industrial Hygiene, United States Public Health Service

BETHESDA, MARYLAND

One of the most significant changes war has brought is the increase of responsibility for the individual. The workman must produce more—faster; the physician must see more patients—over greater areas; the governmental industrial hygienist must help conserve manpower which is exposed to new hazards daily. The American solution to these new and greater problems is cooperative effort.

Although the official industrial hygiene agency serves as a spearhead for bringing health services to our workers, six out of ten of these workers, when in need of medical attention, turn to the private practitioner. Plainly, both agency and physician must work together.

The physician should utilize to the fullest extent the services which are provided by the official industrial hygiene agency, and through it the facilities of the entire health department. The industrial hygienists can provide consultation services on the toxicity of materials and processes, control of environmental hazards, occupational diseases, and general industrial illness; their laboratory services are available for both clinical and environmental investigations. In every state where it has been done, making the industrial hygiene physician of the state industrial hygiene bureau a member of the state medical society's committee on industrial health, a highly effective bridge of communications has been established.

The personal physician, for his part, can sharpen the tools at his command. He can make the use of accurate and detailed occupational histories standard practice. He can use the pre-employment examination as a pre-*placement* method. He can increase his familiarity with occupational diseases, their causes and control, and give the reporting of such illness the same care he gives communicable disease.

The physician who efficiently handles a case of occupational disability saves a working skill as well as a man. Such medical efficiency and such rescued skills, together, multiplied by thousands each month and transformed into astronomical numbers of war weapons, demonstrate that the private medical practice can be as much a part of front-line combat as accurate artillery.

TISSUE GAS FORMATION FROM METALLIC MAGNESIUM

That several light metals, especially magnesium, produce a gas when in contact with water or tissue fluids was known to the physiological chemists for some time. This, however, appeared to be of no clinical significance until the present-day widespread use of magnesium in the aircraft industry.

Since industrial operations of magnesium parallel those of steel, brass and aluminum, the accidental injuries associated with machining and grinding of magnesium become very important, because the tissue reaction is more than a mere foreign body reaction. The tissue reaction, as demonstrated experimentally by Schulz,[8] is essentially a granuloma. Based on these findings, Schulz proposes that this entity be termed a magnesiogenous pneumagranuloma rather than chemical gas gangrene. This is not an aerobic gas gangrene, for oxygen is present in the gas mixture.[8, 9]

Experimentally, it has been shown that gas will be produced within twenty-four hours if finely divided magnesium is embedded subcutaneously or in the muscle. Particles, the size of splinters, will produce gas within ninety days with concomitant absorption of the splinter. Schulz has been able to demonstrate, through dusting experiments, that inhaled magnesium dust produces no residual pulmonary pathology. He did observe that the animals tended to have a frothy sputum.

Based on the above experimental data, it would appear that wounds contaminated with magnesium

[7] U. S. Dept. of Commerce: Safe Handling of Radioactive Luminous Compound. *National Bureau Standards Handbook No. 27.*

[8] Schulz, R. Z., et al.: Magnesiogenous Pneumagranuloma, *Jour. Indust. Hygiene & Toxicology* **24**: 148-153 (June) 1942.

[9] McCord, C. P., et al.: Chemical Gas Gangrene from Metallic Magnesium. *Indus. Med.* **11**: 71 (Feb.) 1942.

metal should be thoroughly cleansed and that all magnesium should be removed, so as to prevent delayed healing incident to gas-formation and subsequent necrosis of the traumatized tissue. No authentic report of these phenomena occurring in man has been reported.

TETRYL

Tetryl (trinitrophenylmethylnitramine) is a booster to insure detonation of TNT or amatol commonly used as bomb or shell fillers, and is extensively used in the munitions industry. When tetryl comes in contact with the skin, a dermatitis may develop in a sensitive worker. The dermatitis is generally over the exposed portions of the body and presents an erythematous, vesiculo-papular eruption.

The skin, according to Dunn,[10] may become yellowish-orange in color. This discoloration, however, is superficial and resembles the discoloration one sees when nitric acid comes in contact with the skin. Long rubber gloves, as well as respirators, should be worn by men exposed to tetryl dust to prevent inhaling the dust. Cases of tetryl dermatitis should be reported to the Bureau of Industrial Hygiene of the Indiana State Board of Health, so that these cases may be referred to the proper Federal agencies concerned with the control of occupational diseases in the government-owned munition plants.

CHLORACNE

Specifications that certain electrical wires, condensers, and cables used by the armed forces be made waterproof and noninflammable are being met by impregnating these articles with a synthetic wax containing a mixture of chlornaphthalenes. Contact with the fumes or cold solid particles of this material develop a form of dermatosis resembling acne vulgaris. Chloracne has also been reported by Schwartz[11] from contact with cutting oils treated with sulphur chloride. This is the first report where cutting oils have caused chloracne.

Usually the face, neck and extensor surfaces of the arms are involved. On the face the points of predilection are the chin, the area over the mandible, the cheek and the forehead. The lesions begin as small comedones, become indurated and generally are contaminated with pus-forming bacteria and dirt. Itching is severe and workers have dubbed this disease as "blackhead itch." Schwartz[12] is of the opinion that these lesions probably are caused by the mechanical plugging of the hair follicles with the synthetic wax. Patch tests are negative.

In addition to the skin lesions, jaundice has been reported by Drinker[13] and Greenburg.[14] Three deaths have been reported by Greenburg.

Indiana war industries are using large quantities of material impregnated or covered with this group of synthetic waxes. The material can be used safely if proper engineering and medical control measures are employed. A rigid housekeeping program and adequate exhaust systems are absolute necessities when these waxes are handled.

TELLURIUM ABSORPTION

Metallurgists in their quest to develop steels that will have characteristics specified by our armed



Chloracne caused by prolonged contact with electrical equipment covered with chlornaphthalenes.

forces have developed all types of new alloys. One of these is tellurized steel. By adding a tellurium compound to the molten steel as it is being poured from the cupola, metallurgists obtain a steel that can withstand the rigors imposed upon it in the battlefield.

When the tellurium is added to the steel, it volatalizes readily and produces a metallic fume that is inhaled by the workmen. In the body the tellurium compounds are reduced to free metallic tellurium with the consequent synthesis of methyl telluride.[15] Methyl telluride is very volatile and has practically a signature odor in that it re-

[10] Dunn, J.: Dermatoses in War Industries, Paper read at National Conference Governmental Indus. Hygienists, Wash., D. C., (Apr. 11) 1942.

[11] Schwartz, L.: *Current News of Industrial Hygiene Activities*, **2**: 3 (Mar.) 1942.

[12] Schwartz, L.: *Occupational Diseases of the Skin*, Pub. by Lea and Febiger, Philadelphia, Pa.

[13] Drinker, C. K., et al.: The Problem of Possible Systemic Effects from Certain Chlorinated Naphthalenes on the Liver. *Proc. Soc. Exper. Biol. and Med.* **35**: 118, 1936.

[14] Greenburg, L., et al.: The Systemic Effects Resulting from Exposure to Certain Chlorinated Hydrocarbons, *Jour. Indus. Hyg. & Tox.* **21**: 29, 1939.

sembles the odor of garlic.[15] This garlic odor will be the first complaint registered by the workers and their associates. This odor is progressively more noticeable until the individual is virtually a social outcast. In addition to this marked odor, men will complain of a metallic taste in their mouth, constipation, gastric upsets and somnolence. The toxicology of tellurium is still in the nebulous stage. Some preliminary animal experimentation has been reported with results that are admittedly preliminary conclusions. Shie and Deeds[15] intimate that tellurium may reduce gastric secretions, dilate the capillaries of the splanchnic area, increase the fragility of the red blood corpuscles, and produce a noticeable leukocytosis prior to the demise of the experimental animal. Clinical experience with this metal is practically nonexistent. Thus with the use of this metal in the present war industries, clinical data should be accumulated relative to the toxicology and pathology elicited by tellurium.

In the meantime, engineering and medical control measures should be inaugurated wherever tellurium is used in war industries. Through such practices it is possible to prevent the men from developing the garlic odor and possibly other untoward symptoms.

BYSSINOSIS

With the increased demand for cotton cloth and sacks, there has been noticed in this and other states a chain of events that some investigators choose to call byssinosis. This is usually seen in carding rooms of cotton mills where a great deal of fine cotton dust is generated.

In the processing of some of the lower grades of dirty, stained cotton, workers, within an hour after exposure, develop an irritation of the nose and throat, cough and a feeling of constriction in the chest. Two or three hours later the exposed workers complain of weakness, headache and dyspnea. Within eight to fourteen hours after exposure, some develop chills and fever with temperatures ranging to 104°. Sweating is profuse during the night. By morning they are symptom-free and upon being re-exposed undergo a similar cycle the next day. Old workers did not possess an immunity to this dust, for they experienced the same chain of events as the new employees.

This problem has been studied by the United States Public Health Service,[16] and they have been able to demonstrate that a certain organism grows on this cotton and that this organism produces a powerful endotoxin capable of producing the symptoms observed. By injecting an extract of the recovered organism under question into human volunteers, Doctor Neal and his associates were able to duplicate the symptoms described.

Positive control measures consisting of increased ventilation and wearing of Type A, Bureau of Mines approved respirators must be used to control byssinosis for the time being.

HYDROGEN SULPHIDE

Highly-tempered steels needed in the armament program presented innumerable problems to oil engineers whose job it was to compound cutting oils that would satisfactorily permit the machining of this type of steel. One answer was the addition of sulphur to the grinding and cutting oils.

In the process of compounding these new cutting oils, hydrogen sulphide was evolved as a by-product. An effort was made to "boil off" the excess hydrogen sulphide by the oil industry, but this process was not run to completion. Thus the oil coming to the various machine shops contained hydrogen sulphide in sufficient quantities to produce headaches, nausea and vomiting among the machine operators using this type of grinding or cutting oil.

The hydrogen sulphide is released when the new oil is added to the machine and forced over the cutting tool. At first high concentrations of hydrogen sulphide are found with a decreasing amount being present as the oil is re-circulated through the oil system. To control this hazard and thereby keep the men at work machining the essentials of war, it is necessary to aerate this oil prior to its use in this machine. This can be done by forcing air through a fifty-gallon container of this oil. This must be done out of doors else one will heavily contaminate the shop atmosphere. It is also advisable to add oil to the machines in continuous small amounts rather than in the five to fifteen gallon lots as was the custom previously.

MISCELLANEOUS

At the present time industry is using fluorides as fluxes for the melting operations in the magnesium foundries and also as fluxes for silver-soldering operations. During these operations fluorides are released in sufficient concentrations to produce irritation of the nasopharynx and eyes. Through engineering controls the atmospheric concentration of fluorides may be kept below the point where it produces local irritation.

To keep the hot magnesium metal from igniting during the pouring of the casting, sulphur is continually sprinkled on the magnesium stream. Through this process high concentrations of sulphur dioxide are produced. In these short "flash" periods the concentration may get above ten parts sulphur dioxide per ten cubic meters of air.[17]

The x-ray method of inspection of finished pieces is supplanting the outmoded manual inspection. Through this procedure flaws are readily found and at the same time more pieces can be in-

[15] Shie, M., and Deeds, F.: Importance of Tellurium as Health Hazard in Industry. Preliminary Report, *Pub. Health Reports*, **35**: 939, (Apr. 16) 1920.

[16] Neal, P. A.: Wartime Research in Division of Industrial Hygiene, Paper read at National Conference Governmental Indus. Hygienists, Wash., D. C., (Apr. 10) 1942.

[17] Williams, C. R.: The Casting of Magnesium. Paper read before Am. Indus. Hyg. Assoc. Convention, Cincinnati, (Apr. 6) 1942.

spected. Where one hundred stressed parts could be examined per day under old methods, the x-ray method permits the examination of some five thousand such pieces. Industrial inspections require high amperages and a relatively long exposure, thereby requiring more protection to the operator than most medical x-ray installations. Operators should be properly protected by enclosures lined with adequate thickness of lead sheathing. The maximum allowable concentration per day is 0.1 roentgens.[7]

A simple test for the effectiveness of the control measures provided consists of having workers carry unexposed dental films, to which have been attached ordinary steel paper clips, in their pockets for one week. These are then developed as usual, and if the outline of the paper clip is visible, protection is inadequate.

Toluol was used extensively as a solvent in industry prior to the present war. The plants using toluol had appropriate exhaust systems designed to keep toluol concentrations to the safe level. Soon after war was declared, toluol was not available to industry, for it is one of the most essential chemicals in the manufacture of explosives. Toluol substitutes were promptly advertised by various firms, with the notation that "it is just as safe as toluol." In reality the bulk of these so-called "safe substitutes" contain high percentages of benzol. The industrial medical departments should be informed of any new substitutes that are brought into the plant. Through this procedure a more toxic material will not be used under the guise of a "safe substitute."

SUMMARY

Our present industrial expansion to produce war commodities has introduced new occupational diseases and has increased the incidence of old ones. Some of these diseases are discussed, but in no instance is this presentation intended as a complete coverage of the literature or the subject. Sufficient data were presented to acquaint the reader with the problems under discussion and as to where additional information could be obtained. Furthermore, it is not the intent of the writers to imply that epidemics of these diseases exist, or that these diseases are causing a great deal of absenteeism. As a matter of fact, due to the close cooperation of all concerned, the potential dangers of these new innovations in industry were recognized and satisfactory control methods have been instituted. However, these compounds will eventually be used by small plants that do not have full-time industrial physicians, and it is with this thought that this material was prepared. Thus the part-time and on-call industrial physician may be forewarned of some of the hazards associated with the conversion of his small plant to war production.

Through diligent application of standard methods for the control of various occupational diseases, war production will not be hampered, and we will be demonstrating the fact that every machine can be safely operated every hour of every day and without harm to the worker.

1098 West Michigan Street.

ABSTRACT

SUGGESTS MEANS OF MINIMIZING RISK OF INJURIES TO SOLDIERS' SPINES

A means of minimizing the risk of members of the armed forces sustaining injuries to the cartilage between the vertebrae of the lower part of the spine is suggested by J. Grafton Love, M.D., Rochester, Minn., in the current issue of *War Medicine*, published by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council. Protrusions of such cartilages or intervertebral disks, as they are called, may result in sciatic or low back pain which does not yield to ordinary treatment.

"A snugly fitting belt of the so-called sacroiliac variety or a snugly fitting canvas corset to support the backs, particularly of parachute troops, dive bombing pilots, those pilots whose duty necessitates their being catapulted from a ship and landing on an airplane carrier, and tank drivers, might serve to protect the vulnerable lower part of the back and prevent injuries to the intervertebral disk . . . and therefore decrease the number of protruded intervertebral disks which may otherwise occur," Dr. Love suggests.

He says that "the condition of protruded intervertebral disk, with consequent compression of the spinal cord and spinal nerves, is occurring among the armed forces with a frequency sufficient to warrant special consideration, and as the American military services, particularly the Tank Corps and the Air Corps, have become active under conditions of actual war, injuries to the intervertebral disks will occur more frequently.

The pain from this condition is usually in the lower part of the back. At the time of injury to the disk, the victim may feel, or in rare cases even hear, a snap in the back. At times, the victim even complains of loss of power in the lower extremities at the time of the onset of the protrusion, but more characteristically he has backache, and after a few days to a few weeks the pain extends down one sciatic nerve. The pain is usually accentuated by coughing, sneezing and straining at stool, and in about a fourth of the cases the pain is sufficiently severe at night to interfere with sleep.

"The treatment of protruded intervertebral disk," Dr. Love says, "is removal of the fragmented cartilage which is pressing on the nerve root or spinal cord. . . ."

THE FATIGUE PROBLEM IN INDUSTRY

STANLEY D. PIATEK
Assistant Personnel Director, Continental Roll and Steel Foundry Company
EAST CHICAGO, INDIANA

The present critical period brought on by the war has created numerous problems. One of these, *fatigue*, is gradually coming to the fore and is beginning to attract the attention of both the industrialist and the industrial physician.

Unquestionably, the productivity of this nation will share top honors with our combat forces when finally the Axis is defeated. However, before this ultimate victory can be achieved, certain restrictions must be tolerated and certain "normal" ways of life temporarily abolished. Somewhere someone stated that to give man a basis for an ideal existence, his day should be divided into three equal parts: eight hours for work, eight for play and eight for rest. Seldom is one permitted to thus regularly enjoy daily existence, even in normal times; but we do know this: a drastic departure from this mode will eventually result in physical or mental abuse, or both.

Fatigue is rampant in industry today. Not only is it a source of worry to management, who fear that once it gets out of hand it will create havoc with production schedules, but it is also fast becoming a problem to the industrial physician who is now recognizing it in a sharp rise in occupational injuries, absenteeism and lessened resistance to general maladies. Another sequel of the problem is the number of public accidents brought on by organic or mental ailments attributed directly or partly to this condition. Last year alone, enough men between twenty and forty-five were killed in traffic accidents to form an entire army division—ten thousand workers!

One cannot peremptorily dismiss fatigue by simply recommending the removal of the causes, because today, especially, the so-called "necessary evils" which are causing fatigue must remain with us for the duration in order that we may accomplish more important objectives. We are aware that fatigue facing the industrial worker nowadays is mostly physiological, somewhat psychological and slightly environmental. To offset the physiological aspect, it would be necessary to curtail production methods and schedules. This, of course, we will not do. Especially with France's example before us, we must for the present forget the normal approach to this problem. You will remember a couple of years back when for social and economical reasons France had adopted a forty-hour work-week. This plan employed at the right time is very commendable. However, it was instituted only shortly before Hitler's rampage; and when the Frenchmen finally awoke to the full seriousness of their inadvertent experiment, they plunged into frenzied production of war materiel. That it was too late, we know. Thus, here in this country where more plants are going up and an acute shortage of skilled and semi-skilled workers has long been felt, we must continue to work ourselves to plus capacity. If necessary, we have to stay on the job seven days a week and often work more than eight hours per day. We will note here that it is not only industry who is suffering from overwork. A glaring example of this is the medical profession on the home front, which also is feeling this problem since so many of their ranks have been required in the armed forces.

The modern method of warfare by mechanization makes it imperative that industry participate more fully in the war effort than heretofore. The *battle of production* is no mere pep slogan. This system of mechanized warfare also makes it obvious that even to sustain a satisfactory defense, one must be within close equality to the aggressor in the number and type of armament. To carry on a successful offensive, it is held that the attacking unit be trebled in men and equipment to the unit assaulted. Some authorities increase this ratio. So, to outproduce the enemy three to one and counteract the definite labor shortage, we have no alternative but to work harder and longer than in the past. We read much these days, however, in articles dealing with fatigue that the subject of "increased working hours" is obtaining too much unnecessary attention. Authorities on fatigue contend that there is yet little actual proof that long fatiguing periods of work leave permanent injurious effects on health or work efficiency. On the other hand, here is an interesting sidelight: at the time of the Dunkirk evacuation the British worked twelve hours per day, seven days a week, and while production did increase for a short period, within two months production started to fall and absenteeism became general. Since absenteeism was especially high on Saturday afternoon and Sunday, the National Expenditure Committee of the Commons recommended abolishing Sunday work. They found out also that when the working day was reduced to eight hours, absenteeism dropped 33 to 40 per cent. In Germany, ten- to twelve-hour workdays are permitted, but in the case of a twelve-hour day rest intervals totalling two hours are enforced—or were.

Dr. Haggard describes fatigue as being a product of work done. He elaborates by saying that man's susceptibility to fatigue is influenced by his constitution, habits of muscular use, work environment and the nature of the task. This is physical fatigue. It is the result of excessive activity of cells or organs of the body with resulting loss of power. *Fatigue which is the natural result of work in moderate degrees is desirable since it leads to rest*

and renewed vigor. Here is a statement by Dr. J. R. Gardner: "Glycogen is the chief source of muscular energy. When muscular contraction takes place, its available oxygen enters into a chemical combination resulting in the disintegration or combustion of its glycogen, followed by the formation of carbon dioxide and lactic acid, both of which are powerful underlying contributors toward the induction of muscular fatigue and constitute the etiological factors while the exciting factor is work." We also hear of false fatigue. This is an abnormal exaggeration of the feeling of weariness, brought on by a mental state. Mental fatigue, sometimes called "nervous" or psychological fatigue, is sensory, producing dull "feeling tones" and staleness.

Not necessarily listed in the order of their importance, below are some brief notes on *causes*, *results* and *remedies* of fatigue:

Causes

Environmental, such as sound, light, temperature, congestion, lay-out of work, etc.

Drugs, alcohol.

Monotony.

Strenuous life, including too much eating and smoking.

Poor posture.

Home problems—surroundings, family relationships.

Working hours.

General living conditions.

Irritability, hesitancy and impulsiveness, difficulty in making decisions, feeling of helplessness, lowered moral resistance, overexertion of will by too many petty decisions, worrisome responsibilities, frustrated efforts, baffling restraint, bursts of anger, dissension, friction, et cetera.

General health. Tuberculosis, cardio-vascular-renal conditions, diabetes and syphilis are some maladies which bring on fatigue after only little effort.

Results

Unsteadiness of attention.

Lack of interest.

Inaccurate movements.

Lessened ability to perform, thus decreasing production and efficiency.

Increased labor-turnover.

Increased accidents and proneness to them.

Increased absenteeism.

Quality of production diminished.

Mental aptitude lowered.

Susceptibility to disease increased in direct ratio to lowering of vitality.

Liability to commit errors heightened.

At worst, physical, nervous or moral breakdown.

Remedies

Prevention of causes wherever possible.

Interest.

Stimuli or powerful motives, such as love, patriotism, loyalty, ambition, responsibility, et cetera. These will counteract initial feelings of fatigue and will produce a condition similar to an athlete's "second wind." Excess, of course, is dangerous.

Rest—sleep.

Quiet, especially for intellectual pursuits.

Proper ventilation. Sixty-eight degrees F. is most favorable, although it is a fact that for certain operations, mostly in the metals industry, workers are subjected necessarily to extremely high temperatures. Heat fatigue was once an industrial problem but is swiftly being eliminated through modern methods of prevention.

Proper lighting—sufficient degree of intensity and evenness of illumination.

Vacations—several short ones rather than one long one.

Hobbies.

Sports.

Physical fitness.

Adjustment of hours of employment.

Job simplification.

Elimination of lost motion.

Elimination of crowding in factories. Also, arrangement of work for greater comfort.

Improvement in nutrition.

Improvement in industrial morale.

ADOPTION OF REST PERIODS. This is important. Actual experience shows that fatigue has been lessened, production increased and accidents minimized where rest periods have been instituted.

Music—installation of public address systems wherever possible for the purpose of supplying music to counteract machinery hums and other noises, to stimulate rhythmic movements and mental well-being. Experiments along this line have proved very successful in Great Britain and South America, and it is surprising that more establishments in this country do not follow suit.

In conclusion, it is apparent that for the duration of this war we shall not be able to do much to offset physiological fatigue. We can only attempt to minimize it wherever possible without jeopardizing the war effort. However, there is much to be done in eliminating psychological and environmental fatigue, and this can be accomplished through a better understanding of the actual causes, through education and publicity.



THOUGHTS ABOUT PROBLEMS OF WARTIME MEDICINE

EDWARD C. HOLMBLAD, M.D.

MANAGING DIRECTOR, AMERICAN ASSOCIATION OF INDUSTRIAL PHYSICIANS AND SURGEONS

CHICAGO, ILLINOIS

We are all being confronted with wartime problems in medicine nearly every day. To exchange our thoughts about them may be of assistance. With the enlistment of the younger and middle-aged physicians, and the enlistment of new graduates into military service instead of replacing those deceased or incapacitated, the shortage of physicians will be manifest everywhere.

Being unable to employ physicians because of this scarcity we must seek ways and means of simplifying our work or delegating parts of it to non-medical assistants. All of us are working longer hours and doing more work than we were doing before "Jap" Sunday.

One of the first things we must do is to get competent and adequate secretarial help to take over the "paper work." I talked with the chief medical officer of a large war industry this past week who operates, supervises treatment, and examines patients from 8:00 a. m. to 6:00 p. m. Then from 6:00 p. m. to midnight he does his desk and paper work. Isn't it too bad that some way hasn't been devised to relieve him of this detail? We must help him to get adequate help and relief from this extra burden.

In many industries and business or plant medical departments nurses and trained assistants can remove dressings and re-apply bandages and dressings under medical supervision. In this same war industry I was glad to see that every dressing case was looked at or examined by a physician before others carried out the detail of treatment.

Just how much of our work can be delegated to assistants depends on the nature of the medical service and the character of the treatment. History taking, height, weight, vision, and hearing tests, as well as inspection of joint and extremity movements, and urine analysis can be carried out by adequately trained non-professional assistants. The recording of pre-employment and periodic examination findings should all be done by assistants. Dressings, physical therapy, x-rays, hypodermic injections, drawing of blood tests, and diagramming of injuries can all be delegated to assistants within their respective capacities and training. Visiting nurses, where available, can do simple follow-up dressings or recheck temperatures, pulses, etc., in postoperative or post-traumatic cases at home thus saving the physician many home calls. Patients will probably have to learn before this war is over that where it is not absolutely necessary they cannot expect to see the physician every day, or even several times daily.

One outstanding orthopedic specialist in our city has his secretary tell each patient on going in to see the doctor that the interview is limited to ten minutes. This frequently saves unnecessary conversation and gets the essential work done promptly.

I fully realize how desirable and advisable it is to sit down and spend a lot of time with many neurotic, anxious and apprehensive patients, answering their same questions over and over again for the sake of assurance and emphasis. But it is not fair to the doctor nor his other patients for a few to unnecessarily monopolize his time. We have all approached the end of a hard day's work, tired and ready to go home, when lo and behold! some poor soul comes in to sing the "menopausal blues." We'll have to learn to give our medicines promptly and terminate such interviews early — at least for the duration.

War medicine demands that medical service will have to be streamlined in many respects. We may learn to accomplish great things and demonstrate short cuts we never dreamed possible. We must realize that our services have to be speeded up; that if only half the doctors are to be available at home, both the patient and doctor must cooperate to make that service the best, and that it must be limited to the essentials in this war effort.

Annual Convention

Indiana State Medical Association

French Lick

September 29, 30 and October 1, 1942

INDUSTRIAL HEALTH IN WARTIME

CARL M. PETERSON, M.D.

Secretary of the Council of Industrial Health

AMERICAN MEDICAL ASSOCIATION

CHICAGO, ILLINOIS

It is becoming plainer daily that the conduct of the war and the dedication of everything we possess to its successful outcome must be accompanied by increased and intensified industrial health activity. The welfare of the men and women who produce the means for waging modern war has always been recognized as a paramount professional responsibility to the great credit of the original Committee on Medical Preparedness of the American Medical Association and its cooperating state units, as well as in the organization and program of the Procurement and Assignment Service. If doubt persists in any one's mind about the importance of industrial health, that feeling should be dispelled by the growing interest and actual concern over the well-being of all employees by the powerful War Production Board, the Office of Civilian Defense, the Service of Supply in the Army, and the industrial hygiene programs under development by the Surgeons-General of the Army, Navy and Public Health Service.

We know enough as physicians, engineers and others to make nearly every job safe, healthful and more productive. Our immediate problem therefore, and one which transcends all others, is wider and more pointed application of information already in our possession. Research, naturally, is a highly essential factor in the prosecution of wartime industrial health but, in the main, the principal problems confronting industry and the medical profession under the pressure of current events are those involved in the provision of better preventive medicine and surgery in industry, and much more extensive and improved industrial health supervision by physicians in plants of all kinds and sizes.

What is needed to adjust our willingness and ability to serve in the field of industrial health with available supplies of competent personnel and medical facilities? The principal obstacles to overcome are:

1. We must conserve the few well-trained industrial physicians, hygienists, nurses and others and use them not alone in their present professional capacities but as a nucleus for training others. This concept apparently is receiving much more realistic consideration in official agencies having to do with the conservation and proper use of medical and other professional manpower.

2. We must convince small and medium-sized plant operators that it is desirable in every way to support programs of industrial health. In this direction we can expect powerful assistance from influential agencies in the government, in industry itself, and from labor.

3. We must persuade and educate the employee to take a greater interest in his own physical welfare off the job as well as on it. We must recognize that employees spend more time away from work than on the job and that in a great many instances the working environment is actually more favorable to health than coexisting bad housing, poor nutrition and improper use of leisure time.

Each plant, then, regardless of size, should have access to:

1. A physician who takes genuine interest in a properly conducted industrial medical department. He may supply his services as an individual in one or more plants, or as a member of a group of physicians, or as a member in a panel conducted under the auspices of a state or county medical society.

2. Good industrial nursing. Industrial nurses with proper preparation, acting under the physician's immediate supervision or standing orders will supply for many small firms the principal fundamental details of industrial health service.

3. Industrial hygiene services directed at the improvement of working environment and control of unhealthful occupational exposure provided by physicians and others under the guidance and assistance of the specialized personnel in the state or local bureaus of industrial hygiene.

4. A plant health program which will include:
   a. Good first aid, emergency, and subsequent medical and surgical care for all industrially induced injuries.
   b. Proper health supervision through physical examinations and health education.
   c. Good correlation with family physicians and other community health agencies for adequate management of non-occupational sickness and injury.
   d. Good records of all causes of absence from work as a guide to necessary control, and the establishment of proper preventive measures.

As this ideal goal is reached we can begin to feel that the quality of industrial health supervision is approaching reasonable uniformity—only the quantity, not the quality, varying according to the size of the plant.

To hasten this end the Council on Industrial Health has issued pamphlets descriptive of medical services in industry which include such titles as: (1) "Outline of Procedure for Physicians in Indus-

try." This statement is designed to acquaint the practicing physician with ordinary duties and relationships in industry. (2) "The Industral Medical Department." A brief description of how to go about setting up a plant dispensary. (3) "Plant Hygiene Studies." This emphasizes that no physician will make a real contribution unless he gets out into the plant and makes constructive suggestions about prevention of harmful exposures, using necessary industrial hygiene and safety consultation and study whenever necessary. All of these publications and others on various aspects of industrial health are available on request.

This program which has been developed by the Council on Industrial Health and its cooperating committees in state and county medical societies is commended to the thoughtful consideration of every physician in civil practice as an avenue of direct contribution to the war effort and one capable of integration with the existing standards and patterns of accepted community medical service. In fact, it is not out of reason to suggest that the industrial approach may become one very useful means for adjusting the medical needs of large segments of a community to dwindling numbers of physicians and available health facilities. In any case, organization of the highest type is urgently necessary if the essential interests of worker, employer and physician are properly understood and intelligently safeguarded.

FUNCTIONS OF COMMITTEE ON THE ALLOCATION OF MEDICAL PERSONNEL, PROCUREMENT AND ASSIGNMENT SERVICE FOR PHYSICIANS, DENTISTS, AND VETERINARIANS

MAXWELL E. LAPHAM, M.D.

Executive Secretary, Committee on the Allocation of Medical Personnel

WASHINGTON, D.C.

On April 11, 1942, the Directing Board of the Procurement and Assignment Service adopted a resolution setting up a special committee, consisting of Dr. Harold S. Diehl, chairman, Dr. Roscoe G. Leland, and Mr. George St. John Perrott, who were authorized to utilize whatever advisory assistance they might need. The functions of this committee were to report to the Procurement and Assignment Service (1) on minimum personnel requirements of medical schools, hospitals, industry, and civilian medical practice, and (2) to provide an estimate for the armed forces of the total number of physicians in the country available for Federal service, still leaving a sufficient number to satisfy the criteria set up for the needs of the civilian population.

The Committee on the Allocation of Medical Personnel has had five meetings—April 26, May 17, June 6, June 21, and July 22. In attempting to establish criteria for the determination of essential medical personnel, this committee has sought the advice of the committees of (1) Medical Education, (2) Hospitals, (3) Industrial Health and Medicine, (4) Public Health, and (5) Women Physicians.

The first major task of the Committee on Allocation of Medical Personnel was the establishment of state quotas to meet the requirements of the armed forces for 42,000 physicians by December 31, 1942. These quotas have been sent to the state chairmen of physicians, and a procedure has been set up to keep balance sheets showing the number of physicians who have been commissioned and the number still to be obtained from each state.

On the advice of the Committee on Medical Education a form was prepared for the use of medical schools to aid them in revising their faculty lists as of July 1. A similar form, together with instructions, is now being prepared for the use of hospitals. The Public Health Committee has defined essential physicians in state and local health offices and has recommended that the United States Public Health Service make a survey of the staffs of such offices with a view to ascertaining the changes that have occurred since last fall. The Committee on Industrial Health and Medicine has given criteria for determining essential physicians in industrial medicine.

As physicians have been commissioned in increasing numbers in the armed forces, there has been a demand for women to take the places left vacant in civilian practice. Furthermore, the establishment of the Women's Army Auxiliary Corps has resulted in a demand for women doctors to serve the WAACs. A meeting of the Committee of Women Physicians was called to discuss these matters and to initiate plans to use women in industrial plants, in war industry areas, in medical schools, in hospitals, and in other places where shortages of medical personnel are developing.

OCCUPATIONAL DISEASES
(A FEW PRACTICAL POINTS)

JEWETT V. REED, M.D.
A. K. HARCOURT, M.D.
INDIANAPOLIS

Until the past few years few of us paid much attention to the subject of occupational disease, but since the passing of the compensation law in Indiana, making occupational disease compensable, it has become necessary for us to know something of this subject. With the present increase in production, these diseases are becoming more and more common, making it necessary for all physicians to acquaint themselves at least with the high points of this phase of medicine. It is quite difficult for a physician or surgeon to learn an entirely new specialty within a few years, but that is what is demanded of us by modern industry. We do not pose as being specialists on occupational disease, but circumstances have made it necessary for us to study and to treat a great number of persons so afflicted, and our experiences have led us to adopt a certain routine which may be of help to others who are required to handle such cases. Space will allow us to mention only a few of the more common occupational diseases which we are all liable to encounter. Some of our statements may seem dogmatic, although they are not entirely our opinions but the opinions of the authorities on this subject.

When a patient presents himself complaining that he is suffering from an occupational disease, our first step is to try to determine whether his illness is incident to his work or is due to some other cause. Every one who works in a hazardous occupational environment is subject to the same diseases which affect other persons. We see some who jump at the conclusion that because a worker becomes ill, his illness is due to his employment. In our experience, a large number of alleged occupational diseases are due to natural causes entirely independent of the patient's work. Again, a workman may be suffering from some chronic non-occupational disease and have superimposed upon this some form of occupational disease. Most workers have some knowledge of the danger of the circumstances with which they come in contact, and if they become ill they readily assume that their trouble is due to their occupation. Unfortunately, their physicians often accept the patient's diagnosis without further investigation.

When confronted with a patient who claims an occupational disease, our first step is to determine as nearly as possible the hazards with which he comes in contact. The second step is to try to diagnose his illness and see how closely it corresponds to the clinical features of the occupational disease that he claims. One must always bear in mind that the patient may be suffering from both an occupational and a non-occupational disease at the same time, which may give a complicated clinical picture. If we know definitely the occupational hazards surrounding a worker, we have a fairly clear idea as to the course to follow in our study of the case, but often we

THE PHYSICIAN IN INDUSTRY

JAMES E. PAULLIN, M.D.

Member of the Directing Board for The Procurement and Assignment of Physicians, Dentists and Veterinarians, and President-elect of the American Medical Association.

ATLANTA, GEORGIA

Among the various duties assigned to the Procurement and Assignment Agency for Physicians, Dentists and Veterinarians is that of seeing that industry receives a sufficient quota of physicians to protect its workers and their families from various new problems which undoubtedly are constantly arising in great manufacturing plants now making necessary war materials for the armed forces. It can be readily appreciated that with the rapidly expanding industrial development it becomes extremely important to choose physicians who have had some training and some experience in preventive medicine in so far as it concerns the various hazards to which workers will be subjected because of this great expanding program. These problems may relate not only to the protection of the working personnel in accidents but to various chemical and other hazards which may constantly increase with the expanding production.

Not only will the plants for the manufacture of war materials need physicians, but also the families of many of these workers who are dislocating themselves to perform a patriotic duty will or may move to some locality where it is not possible for them to obtain good medical care. It is considered within the province of the Procurement and Assignment Service to obtain for these people medical care to be furnished by physicians who have signified their willingness to do this type of work. These problems are among those which need solution at the earliest possible moment, and I feel quite sure that through the cooperative effort of the Procurement and Assignment Service, the American Medical Association's Committee on War Activities and the National Research Council, together with the help of the United States Public Health Service, a great deal can be accomplished not only to promote the development of industrial medicine but to furnish medical care for the workers and their families who are engaged in this all-out production activity.

are unable to learn the true nature of the substances which the worker contacts. A year ago we felt that we had a rather comprehensive knowledge of the substances which caused occupational diseases, as manufacturing processes and materials were fairly well standardized. Today, however, there are many new processes, new alloys and new combinations of chemicals which make the evaluation of the causes of certain occupational diseases most difficult. Lack of space makes it necessary to consider briefly only a few types of occupational diseases. The ones mentioned are those commonly seen in the average practice in industrial centers.

Dust Hazards: Many workers whose occupations require them to spend long hours in a dusty atmosphere may become ill from various causes, and almost invariably these illnesses are blamed upon the dust. It is true that in certain occupations, such as coal and iron ore mining and stone cutting, workers develop a condition in their lungs which can be demonstrated on an x-ray film, a condition described as pneumonokoniosis.

Pneumonokoniosis is described in many textbooks as a disease entity, nevertheless, the present conception of this condition is that the dust deposited in the peribronchial spaces and lymph nodes does not constitute a real disease but merely dirty lungs. The only exception to this is when the pneumonokoniosis is due to dust of silica or of asbestos. Men who work in an atmosphere containing dust of mineral wool often ascribe their illnesses to silicosis because they know that the rock wool is composed chiefly of calcium and aluminum silicates. The fact is, however, that the silicates do not cause silicosis, the offending substance always being silica. If one can exclude the dust of silica and asbestos, one can feel sure that many illnesses of those working in dusty trades are due to conditions other than the dust. It is true that working in an innocuous dust may be disturbing, and if the worker is subject to rhinitis or bronchitis this dust may aggravate his symptoms, but it will not produce a disabling disease. A dirty skin may predispose to skin irritation, so dirty or dusty lungs may make one susceptible to bronchial irritation.

We see many cases of alleged silicosis and while we are interested in the patient's occupational history there is only one real diagnostic test, an x-ray film of the lungs. This is so characteristic that there is little chance for error. If there should be any doubt, or if there is any suggestion of lung tuberculosis either clinically or on the x-ray film, these should be checked by a roentgenologist. If we make a diagnosis of silicosis, our next consideration is to determine the degree of disability. With the presence of any active tuberculosis, the patient should be considered as totally disabled, the same as if he were suffering from simple tuberculosis. If the silicosis is uncomplicated, the next step is to determine the degree of chest expansion. If this is reduced to one inch or less, the patient should be considered as being disabled from engaging in any form of manual labor and his activities should be regulated by the degree of shortness of breath on exertion.

The diagnosis of asbestosis is made entirely by the x-ray film of the lungs, and as the appearance of the lung changes it is more difficult to interpret than those of silicosis. All suspected films of asbestosis should be referred to a roentgenologist for diagnosis.

Carbon Monoxide Poisoning: We are all acquainted with the diagnosis and treatment of acute carbon monoxide asphyxiation, but many physicians seem to be confused regarding the so-called "chronic carbon monoxide poisoning." We frequently see patients who work about gas stoves and furnaces and in garages who complain of various ills which they attribute to escaping gas. It is true that these workers may inhale enough carbon monoxide to cause headache, malaise, and diminish efficiency, but as soon as they leave the contaminated atmosphere all symptoms caused by the gas disappear. Carbon monoxide has no accumulative action and there is no reliable evidence that there is such a condition as chronic carbon monoxide poisoning.

Lead Poisoning: We see many patients who contact some form of lead in their work, and on becoming ill a diagnosis of lead poisoning is almost invariably made. About one out of five such cases proves to be really lead poisoning, the other four being illnesses from entirely independent conditions. In all persons who claim they have lead poisoning, if the physical findings are negative for this form of intoxication and if their history of lead exposure is also inadequate, we nevertheless assume that they are suffering from lead poisoning until this is disproved. The clinical symptoms of lead colic, wrist drop and foot drop, and the presence of a lead line on the gums are rarely seen together in a case of true lead poisoning, and even when these symptoms are present, laboratory studies are still indicated. Whenever we see a patient that even suggests lead poisoning, regardless of our physical findings, we obtain a count of the stipple red cells of the blood. If the number of these cells amounts to 2 per cent or less, we can assume that the patient is not suffering from lead poisoning. If the number of stipple cells is above 2 per cent, it may mean several things, but it is very suggestive of an excess of lead in the circulating blood. Our next step is to obtain an estimation of the amount of lead in the urine. It is very important that this estimation be made by a competent chemist. Lead in the urine in amounts ranging from 0.02 to 0.08 mg. per liter is within normal limits. Larger amounts in one free from symptoms may mean only lead exposure, but these larger amounts of lead accompanied by one or more of the clinical features of lead poisoning make the diagnosis positive.

The symptoms of lead poisoning are due to the lead circulating in the blood. The body attempts to

rid itself of this circulating lead in two ways: first, to throw it off in the urine and feces; and second, to store it in the bones in an innocuous form. The treatment of lead poisoning may be carried out in one or two ways. First, by the administration of one of several drugs, the most common being potassium iodide. This will aid in the elimination of the lead from the body. This method has some danger, however, as it may mobilize some of the lead previously stored in the bones, throwing it into the circulation and thus repoisoning the patient. The second form of treatment is to rid the circulation of lead by fixing it in the bones. This is done by administering large doses of calcium. In acute cases calcium gluconate 1 Gm. in 10 cc. of water intravenously once or twice daily is used, and in chronic cases 60 grains of calcium lactate by mouth is given daily. We feel that we have obtained quicker and more satisfactory results from the calcium method, but in this form of treatment one must bear in mind that the lead is still in the body and that it is possible for it to become mobilized under certain conditions and repoison the patient. While this possibility is remote, it can occur if the patient suffers a severe infection, infectious disease, or any condition that tends to produce an acidosis.

Occupational Skin Lesions: Forty to fifty per cent of all occupational diseases affect the skin. We are not skin specialists but after seeing quite a number of such cases we cannot help learning something about this type of occupational disturbance. About one-fourth of these cases which we see are too difficult for us to handle, so we refer them to a dermatologist for diagnosis and treatment. Other types of occupational skin lesions are so obvious that the diagnosis can be made at a glance. In many cases the patient's occupational history corroborates the diagnosis; these are the skin lesions due to the so-called "general skin irritants," substances that affect practically all persons alike, such as acids, alkali, chrome salts, turpentine, zinc chloride, etc. In cases caused by one of these substances the skin lesion is fairly characteristic for that substance. The second group of skin irritants is classified as "specific" and affects persons according to their susceptibility. These lesions, regardless of the cause, show the same general characteristics, that is, appearance of a dermatitis venenata. In most skin lesions of this type we can generally conclude that they are due to a chemical irritant, but from the appearance of the lesion we cannot determine the nature of the irritant. In such cases patch tests are made from the various substances to which the patient is exposed, which are of the greatest value. Before making this test it is very important to determine, if possible, whether the substance is a general or a specific irritant. If the substance is a general irritant, before a patch test is made it should be diluted, as described in textbooks on this subject. In some cases we have no idea as to the nature of the substance with which we are dealing, so in most cases we advise the patient to remove the patch if he notices any severe itching or burning in this area. Failing to realize the importance of this warning in our early experience caused considerable embarrassment in a patient who brought in a dark brown fluid as the suspected cause of his dermatitis. The patch test was not only positive but showed a deep chrome ulcer which took longer to heal than the original dermatitis. When the patch shows a definite erythema within twenty-four hours, we can assume that the patient is sensitive to that substance. If it is negative after twenty-four hours we repeat the patch over the exact spot and re-examine it in another twenty-four hours. If the patch is still negative we can assume that the chances are that the dermatitis is not due to the material under inspection. In such cases, however, we advise the patient to inspect the area of the patch for another week, as in some cases a positive reaction is delayed. A positive test can always be relied upon, but a negative patch test does not in some instances indicate the real condition, probably because the application of the test did not accurately represent the occupational contact.

An oil dermatitis differs from lesions due to the general and specific irritants. Many workers who have their hands in machine oil or cutting oil and whose clothes are soaked in oil develop an acneform eruption on the surfaces contacted. In severe cases there may be multiple boils over the exposed area. In the past, oil dermatitis could easily be diagnosed at a glance, but at present various substances have been added to cutting oils to increase their cutting efficiency. Most of these added substances are secret preparations, but in one instance we found that the addition was a mixture of sulphur and fish oil. In susceptible persons this mixture produced a specific form of dermatitis which was superimposed upon the oil dermatitis, giving a confused clinical picture.

In an occupational dermatitis which does not clear up promptly, one must keep in mind the possibility of an infection with the epidermophytosis, a combination that is rather common.

In treating occupational skin lesions, first advise the patient to keep away from or protect himself from the offending material. Water should be avoided over the affected area. The application of a calamine lotion is often of benefit. If the lesion weeps profusely, Burow's solution is of value. For the pustules of oil dermatitis we apply ammoniated mercury ointment. Most forms of occupational dermatitis due to specific irritants cause severe itching, especially in the early stages. We have found that calmitol ointment relieves the itching immediately, and in many cases it seems to have a beneficial action on the lesion itself.

If we are in doubt as to our diagnosis, we immediately refer the patient to a dermatologist. We also send to him those cases which we diagnose

as non-occupational, in order to have his advice and support in case there is a medical-legal controversy.

Chronic Strains: We have always had a few cases of chronic strain for treatment, but since the great speeding up of production there has been a great increase in this form of disability. It usually appears in the form of tenosynovitis in persons using their fingers and wrists in oftrepeated movements over long periods of time. The condition may be completely disabling to the part and may show itself by swelling of the forearm and by tendon crepitation. The treatment consists of splinting the part and frequent applications of heat, preferably diathermy.

Recently we observed two interesting examples of this type of occupational disease. Two women employed in a munitions plant complained of gradually developing restriction of motion, and pain in the right thumb. They were handling brass shells that were about four inches long and were about the size of a fountain pen, screwing the caps on the ends of these shells. Each cap had six threads and they were handling about five hundred pieces an hour, thus their right thumbs were almost constantly in position of flexion, apposition and adduction. Examination showed a tender swelling over the flexor tendons on the palmar aspect of the first metacarpophalangeal articulation. One woman's thumb became "locked" in flexion at the distal joint. Both of these cases were operated upon. In each instance a marked constriction of the flexor tunnel was found, and in the locked thumb there was a definite swelling of the flexor tendon proximal to the constriction. In both instances we removed a section from the superficial aspect of the tendon sheath, and in the locked thumb we also reduced the size of the tendon by removing a longitudinal section from it. Both cases made prompt and complete recovery. This type of pathology is what one would expect from the movement required. It probably will appear with increased frequency in the near future.

We have observed a few cases in which the worker used his arm forcibly and repeatedly, apparently also bringing into use the lateral neck muscles. He suddenly experiences pain and weakness in the overused arm. Often there is an irregular distribution of impaired sensation of the hand, affecting chiefly the distribution of the ulnar nerve. In many of these cases an x-ray of the lower cervical spine shows a rudimentary cervical rib. This, of course, is a congenital condition, but the extra strain on the lateral neck muscles causes a low grade myositis that affects chiefly the scalenus anticus muscle, producing the so-called "scalenus anticus syndrome." The same condition has been observed in a person who had a rudimentary cervical rib and who was using an air hammer. The acute symptoms of this condition usually disappear with rest and the local application of diathermy. If symptoms persist, a section of the base of the scalenus anticus muscle is indicated.

The occupational diseases described are those which to us are most interesting and most frequently encountered. Many times a situation embarrassing to both the physician and the patient may be avoided if the definition of occupational disease set forth in the Occupational Disease Law is kept in mind: "The disease must arise from exposure or contact in employment and must be peculiar to the industry."

ABSTRACT

SAYS INJURIES TO THE HEART BY BLOWS TO CHEST OFTEN ARE OVERLOOKED

Injury to the heart and adjoining structures caused by blows to the chest or to distant parts of the body is often overlooked because of the prevailing idea that the chest wall and the cushion effect of the lungs prevent such injury, Louis H. Sigler, M.D., Brooklyn, declares in *The Journal of the American Medical Association* for July 11. He emphasizes the importance of bearing in mind that such injury to the heart may occur in any bodily injury and that such patients should be given frequent heart examinations.

The types of blow or impact that may result in heart injury in man, he says, include (1) direct blow to the chest, especially if applied to the region over the heart or stomach; (2) compression of the chest between two solid objects; (3) sudden extreme increase in the pressure within the abdomen by external violence; (4) lifting of an extremely heavy object or other severe strain thrown on the body.

"It must be stressed that it is not the latent force but the velocity of travel of the force when it strikes the body which produces the injury," Dr. Sigler declares.

Factors which help increase or diminish the effects of the striking force on the heart, he says, include the flexibility and resilience of the chest cage. In youth the chest is much more resilient than in advancing age, hence a striking force is more apt to damage the heart in a young man than in an old person.

The presence of disease of the arteries of the heart in advanced age is a sensitizing factor for the production of heart disturbances, if not actual damage, by comparatively little force.

"Injury to the heart may occur without any subjective or objective manifestations," Dr. Sigler advises. "This is especially true if the injury is not severe. If carefully followed, however, even the mild grades of injury may show manifestations by which the injury can be recognized."

PROBLEMS IN WARTIME INDUSTRIAL PRACTICE

N. K. FORSTER, M.D.

HAMMOND

The magnitude of the changes being wrought in industry as the result of total war cannot be encompassed in a brief survey. We are not concerned with the difficulties that beset the manufacturers in adapting engineering and technical problems to the production of war armaments, or the drastic alterations that are necessary to supply processes and products in order to maintain a continuous, rapid flow of materials. But we are directly concerned about the manner and extent to which workers are subjected to new hazards as a result of these changes. Not only must we consider the element of inexperience in the rapid change-over from a peacetime commercial pursuit to a totally different effort in production of wartime supplies, but we must also be prepared to handle a variety of side issues stemming from these changes. Industry must undergo the difficulties of solving specific problems, and in doing so we become involved in an increasing number of situations affecting the safety of workers. In addition industry must also set up safeguards against the possibility of destruction through enemy attacks and the hidden danger of sabotage, and here also must we be prepared to play a large and efficient part.

When we learn that in a short time the number of workers in war industries is expected to total twenty-three million, we begin to appreciate the tremendous increase in medical problems that will arise. Further, when we recognize that of this number many will of necessity be new, inexperienced workers, women, older men, former relief workers and those with one or more physical handicaps, the problems of health maintenance and the care of accidental injuries assume a proportion never before realized in industrial medicine. Through the years the stepchild of surgery, industrial practice, has gradually developed into a recognized specialty. The process has not been an easy one. From an embryo, fathered by a shop

INDUSTRIAL ACTIVITIES OF THE SURGEON GENERAL'S OFFICE

LIEUTENANT-COLONEL A. J. LANZA, MEDICAL CORPS

Chief, Division of Occupational Hygiene

WASHINGTON, D. C.

The War Department is at the present time operating more than one hundred fifty industrial plants, depots, air bases and repair shops, employing approximately four hundred thousand civilian industrial workers who are Civil Service employees. These enterprises cover a wide range of manufacturing, fabricating and repairing. The relationship of the War Department to these employees is similar to that of any comparable private employer. Responsibility for healthful working conditions, for adequate first-aid service and industrial medical service, for a program of pre-employment and periodic physical examinations, for supervision and control of occupational health hazards, and for industrial hygiene surveys has been assigned to The Office of The Surgeon General of the Army. In the Preventive Medicine Service of The Surgeon General's Office, there has been set up a Division of Occupational Hygiene to fulfill these functions; the Division includes an industrial hygiene laboratory located at the Army Medical School.

The general scope of industrial medical service in these Army-operated plants is similar to that which is found throughout industry and it is the aim of the War Department to provide first-class working conditions, competent physicians and nurses and an adequate health program for its civilian employees so as to insure the most favorable conditions for maximum production.

Recently, the Division of Occupational Hygiene has been charged with the responsibility of supervision of health conditions in the Government-owned, contractor-operated plants. Industrial hygiene surveys of this group of plants are made by the Industrial Hygiene Division of the U. S. Public Health Service.

Investigation of mechanization hazards in the armed forces is also a function of the Occupational Hygiene Division which maintains a close liaison with the Tank Corps Medical Research Laboratory at Fort Knox.

foreman with his bottle of iodine and a crude bandage, it has been attended, through various stages of development, by male nurses, practical nurses, graduate nurses and part-time physicians until now it has reached its adult form in the employment of full-time plant physicians and a program of activity that affects every department of the institution.

Today, because of wartime necessity, its importance has been magnified many times and its responsibilities increased beyond limits ever contemplated. The factories must supply the weapons of warfare, and to do so the health and safety of the workers must be preserved. Not only does this apply to the large plants, but such services must also be rendered to the smaller factories. The depletion in our medical ranks, through the need of physicians for the armed forces, creates another problem of considerable concern. Whereas the Army anticipates calling 6.6 doctors for every 1,000 men, industry will more than likely be compelled to accept one doctor for every 6,000 men. However difficult the burden may be, it is one that must be shouldered in the determined effort to keep the forces of production moving at the highest peak.

ABSENTEEISM

Even in peacetime any program of production has required consistent efforts to reduce the number of days lost through disabilities from various causes. Under the present schedule of wartime production, this problem becomes one of paramount importance. It has been determined that male sickness absenteeism of more than a week has risen from eighty-five cases per thousand employees in 1940 to ninety cases in 1941, and that it is quite likely to increase because of a number of factors. Principal among them is the necessity for hiring older workers, women, young inexperienced workers and former relief workers. Additional causes are found in the fatigue-factor resulting from longer hours, overtime and high-speed production. Unsatisfactory home conditions arising from employment of women and the disruption of normal home routine will be manifest in additional cases of absenteeism indicated as due to sickness. The increase in earnings of the individual and the family, coupled with the fact that rationing and shortage of luxuries have left little opportunity to spend the excess over and above budgetary necessities, is a contributory factor. Many individuals will prefer a few days off "on account of illness," since their immediate needs are provided for. The incentive for saving, never a strong one among wage earners, is further inactivated by the fact that there are few luxury articles to be purchased, and this restriction on spending is reflected in increased periods of time-off. It has been shown that high earnings definitely increase the rate of absenteeism.

It might appear paradoxical that the institution of hospitalization and surgical insurance plans, as well as accident and health insurance, has been an instrumental factor in increased absenteeism. However, this has been demonstrated in comparative figures of lost time, because of sickness, before and after the adoption of such plans. The explanation advanced is that premium payments for such insurance are viewed by many as investments to be collected with interest. That this attitude can only result in increased premium rates is already in evidence in many of the larger plants. Nevertheless the advantage of such protection has already been obviated to some extent by an increase of absenteeism.

These remarks have been principally concerned with nonoccupational illnesses and injuries and are not properly a part of this subject. However, the industrial surgeon is directly charged with an extensive responsibility in reducing to a minimum the frequency of such incidents in order that the maximum war effort may be achieved. He is concerned, therefore, in all phases of absenteeism whether they arise from occupational or nonoccupational causes.

THE PROBLEMS AFFECTING INCREASES IN LOST TIME

It has been demonstrated from many sources that the majority of lost-time cases arise because of non-industrial diseases and accidents. However, it is essential that most of our time and thought should be directed toward the elimination of those factors directly responsible, in industry, for lost time through injuries or occupational diseases. When we consider that approximately 18,000 workers were killed in industrial accidents in 1940, and that preliminary estimates for 1941 indicate an increase of 6 per cent in fatal occupational accidents; and when we learn that nearly 90,000 sustained permanent impairment in 1940, and 1,782,000 had temporary disabilities lasting a day or more, and that the increase for 1941 will approximate 14 per cent for nonfatal injuries, we are necessarily confronted by a very serious problem. Further, if the figures for specific occupational diseases and the even greater losses from non-occupational illnesses and injuries are added we learn that in normal peacetimes about 400,000,000 working days are lost each year. If these are increased only 1 per cent it adds a staggering amount, and if wartime production means an increase of 6 per cent to 14 per cent in occupational deaths and disabilities alone, it certainly means an imperative and persistent attempt to provide measures and operation of plans to control the hazards involved. Relaxation of safety measures cannot be countenanced if the energy and efficiency of the workers are to be preserved and the production of war material advanced. That there is a necessity for employment of inexperienced workers, young workers, older workers, handicapped workers and women in industry in order to obtain peak production is evident. That there is additional risk in the conversion of experienced workers in one type of plant to working with entirely different material and processes is admitted. That there are other haz-

ards involved in neglect of health, long hours, overtime and fatigue must be considered. The high speed, twenty-four hours a day operation of machinery, brings an added menace in the neglect of efficient maintenance of such machinery. All of these are general problems that affect the industrial surgeon and the personnel charged with the elimination of hazards, and their control is a vital part in the effort to reduce lost time and conversely to increase efficiency and output.

OCCUPATIONAL DISEASES

Among the most frequent disorders connected with industrial occupations with which the industrial physician comes in contact is that of dermatitis. It is also one of the most difficult to handle. There are so many border-line cases in which the etiologic factor is questionable that the physician is frequently tried in his efforts at control. The large number of irritants which, in a susceptible skin, may cause widespread inflammation and irritation is almost limitless. In the present wartime production we have seen a marked increase in dermatoses due to the use of cutting oils. These oils may be either of the soluble or insoluble type, the former being employed usually as cooling agents, whereas the latter are used to aid the tools in the cutting operations. The soluble types are made up in general of mineral oil, soap and volatile matter and are usually mixed with water in varying proportions. The insoluble type consists of mineral oil, fatty oil, sulphur and chlorine. These agents are allowed to flow over the cutting operation in order to lubricate, increase the cutting power of the tool, preserve the temper and prevent chipping and breaking. In order to prevent rancidity of the oils inhibitors are frequently added in the form of phenolic compounds. The use of these cutting oils brings forth a number of factors which may affect the skin. The petroleum oils defat the skin and also have the property of plugging the skin pores and producing a folliculitis about the hair follicles. The chlorine content may be sufficient to irritate the skin. The sulphur content may cause a dermatitis through its own irritating action, or the heat of the operation may result in the formation of hydrogen sulfide or sulphur dioxide and irritation and even poisoning result. Rancid oils may prove extremely irritating or sensitizing to the skin, and the phenols, cresols, nitrobenzene and similar inhibitors may be sufficient in amount to sensitize it and provoke allergic eczemas. In addition, there is the added hazard of small puncture wounds arising from steel slivers, and subsequent infections. The increased use of these cutting oils in wartime production constitutes a major factor in the increase of dermatoses.

The simulation of "id" eruptions on the hands to occupational dermatoses frequently offers a difficult problem in differential diagnosis. In fact, the prevalence of this disorder is so commonly witnessed that the temptation to class all vesicular lesions seen in industry as of this variety becomes very great. However, a close analysis of the worker's habits, occupation, contacts, and particularly an examination of the feet will frequently clear the diagnosis.

Because of shortages or the demands of the essential production many of the non-toxic or less toxic solvents have been replaced by more toxic substances. Toluol, an essential ingredient in the manufacture of TNT, has been replaced by benzol with all its attendant toxic properties. Many of the halogenated hydrocarbons are being used, principally carbon tetrachloride and trichlorethylene. The danger of systemic poisoning, as well as local manifestations, must be recognized and provided for. Chlorinated solvents, and chlorinated naphthalene waxes have been instrumental in producing instances of serious poisoning and skin manifestations where condensation and ventilation methods are inadequate or protective measures have not been employed.

The use of the electric welding arc has been greatly extended in war production and because of this the hazards associated with its use should not be overlooked. Familiarity with the occurrence of ultraviolet radiations and their harmful effects should not lessen alertness against other manifestations possible with its use. Serious poisoning from its employment in confined places, with inadequate provisions for ventilation, may result from nitrogen dioxide produced by the arc. In addition, certain welding fluxes contain compounds of fluorine, and its absorption in sufficient amount may lead to toxic symptoms. Metal fume fever may arise as a result of breathing zinc oxide fumes where welding is used with galvanized iron. Incomplete combustion brings up the ever-present danger of carbon monoxide poisoning in this process, and instances of lead poisoning have resulted in connection with its use in welding or cutting painted parts. Of course, the associated danger of burns from its use or through contact with molten metal belongs in the category of occupational injuries. The practice of some welders of using others' shields and goggles has led to frequent eye infections and should never be allowed.

There is no doubt but that the increased use of sand in blasting operations, replacing steel shot and grit, will be conducive to an increase in the silicosis hazard. The employment of silicon carbide cutting instruments and the use of abrasive grinding processes for grinding and milling will, no doubt, introduce additional dust hazards. Proper equipment for the protection of the worker as well as continuous vigilance on the part of the plant physician should keep this hazard to a minimum.

The need for increased use of metals with toxic properties will undoubtedly lead to an increase in the number of cases of poisoning. In this connection it might be well to indicate that the examination of a blood smear in cases of suspected lead poisoning is not a reliable test. The stippling of erythrocytes can no longer be considered as a criterion of lead intoxication. It should be determined

by analysis of blood and urine. Mercury returns as an increased hazard in its demand for use in scientific instruments and munitions manufacture. As a result the re-opening of quicksilver mines, without proper provision for eradicating fume and dust hazards, increases the danger of fatal poisoning. Hazards also arise from the use of cadmium where adequate provisions of safety are not employed.

The extensive application of magnesium in aircraft building brings up many new considerations. Not only is the fire and explosion hazard greatly increased, but the danger from imbedded particles and splinters may find expression in serious wounds unless completely removed.

The domestic deposits of manganese will require further development due to increasing needs. Reports have indicated that absorption of excessive amounts of manganese may lead to disabling and incurable effects.

We are all familiar with the reports of radium poisoning resulting from dial painting. It does not seem likely that such an occurrence could be repeated. However, a late survey indicated that some recently established factories were not exercising adequate protective measures. Such criminal negligence should never be allowed, since the handlers of radioactive compounds can be readily protected. The increased use of x-rays for the detection of flaws in forgings and castings presents another problem in protection from x-ray emanations. The resultant dangers of overexposure cannot be too strongly stressed or guarded against.

The fatigue factor in industry is one which is becoming of extreme importance under wartime regime. Whether it results from lack of rest, excessive hours of work, increased speed of production, poor ventilation or other working conditions, heat, humidity, home problems or what not, its presence can only be reflected in increased accidents, lost time, decreased production and lessened efficiency. That the lowered resistance resulting from fatigue can readily be a factor in the incidence of both occupational and non-occupational illness and injuries must not be doubted. It is an easy factor to overlook and consequently must be kept in mind as of paramount importance in maintaining wartime production.

These are but a few of many added problems which present themselves to the industrial physician and are now multiplied in importance because of the intense production schedules. They are factors which serve to increase the number of occupational illnesses, and they present many new phases for consideration and treatment in order that these schedules may not be interrupted and the efficiency of the worker impaired. The conservation of this efficiency is of equal importance to that of maintaining an adequate fighting force.

OCCUPATIONAL INJURIES

The nature of occupational injuries has not changed particularly because of the war. However, the incidence has increased to a considerable degree and the hazards have been greatly multiplied. The reasons for this are similar to those advanced for the increase in occupational diseases. The wide difference in products and processes, coupled with new developments and techniques; the lack of experience in dealing with these new phases; the element of speed in production; the necessity for long hours and overtime; the handling of heavy materials for armaments; the use of new and unfamiliar compounds and processes; the increased hazards of breakage and flying particles associated with the employment of tough, wear-resisting milling-cutters, drills, reamers and boring tools; the high abrasive resistance of grinding wheels necessary to provide a better degree of surface finish on harder materials; and the increased use of heat-treating processes in hardening materials are but a few of the many reasons for an anticipated increase in occupational injuries. When to these are added the factors of new inexperienced workers, women, partially handicapped employees, former relief workers, older men, fatigue, malnutrition, unsatisfactory home arrangements, financial worries, shop friction and numerous other elements, it is readily understood why an increase in accident rates is to be expected. Realizing this, we are forewarned and the realization should be reflected in a sustained effort to provide defensive measures against them. It is only through an alert awareness of these increased hazards that remedial steps will be taken and followed through in order that disabilities may be prevented and the worker kept at the highest point of efficiency.

COMMENT

The evidence is already revealing the fact that all industry engaged in wartime production must anticipate an increase in the number of cases of occupational diseases and injuries. The reasons for this have been sufficiently stressed. The presence of this situation points to a definite attitude that must be adopted by the entire personnel. The executive must lend his cooperation and assistance in the carrying out of whatever plans may be advanced in obviating these hazards. The safety director must redouble his efforts to provide measures which will correct existing dangers and prevent new ones. The sanitary engineer must add his essential part in providing measures which will prohibit the occurrence of unnecessary risks. The personnel director must assist in this prevention program through careful job placement. The employee himself must cooperate in maintaining his own efficiency through proper rest, health standards and careful observance of safety rules. Finally, the medical director has an endless job in his supervision of health maintenance, his pre-employment physical and periodical examinations, his suggestions in job placement, his corrections of contact hazards, his ingenuity in treating occupational diseases, and his ability in serving injured employees.

Only the realization that complete victory must be won will serve to subordinate selfishness to the point where entire and sustained effort will be expended in reducing the hazards of industry and preserving the efficiency of the worker. Ultimate victory depends upon the full cooperation of all concerned, and if the fighting forces are to bring it about they will require the unreserved effort of everyone engaged in the production of war material. We *must* win!

ABSTRACTS

SAYS NO MORE THAN 1,500 PEOPLE SHOULD BE SERVED BY ONE DOCTOR

Until special studies now under way are completed, it has been agreed that, for general medical service, approximately one "effective" physician to fifteen hundred population is the minimum coverage that should be provided, the board of Procurement and Assignment Service for Physicians, Dentists and Veterinarians says in the July 11 issue of *The Journal of the American Medical Association* in answer to the question of how many people in a community can be served by one man. Limited specialists are not included in the above basic figure. It is explained that a special committee of the Procurement and Assignment Service is making studies to serve as a basis for the determination of minimum quotas of medical service which should be retained for the civilian population.

Some of the other questions and answers contained in the special statement are as follows:

"Q. Will the Procurement and Assignment Service protect a doctor from the draft?

"A. The Procurement and Assignment Service was not established to protect anybody from anything. Its function is to enroll physicians, dentists and veterinarians and assign them to the positions in which their services will be of greatest value to the nation in the war emergency. This function obviously parallels the responsibilities of Selective Service, but the officials of the Selective Service have welcomed the cooperation of the Procurement and Assignment Service in dealing with these professional groups. To implement this cooperation, General Hershey issued a memorandum to Selective Service boards asking them to secure through the state director of Selective Service the recommendations of the Procurement and Assignment Service wherever they are considering the classification of a physician, dentist or veterinarian. Hence, if a doctor has enrolled with the Procurement and Assignment Service, his Selective Service board will be so advised and a recommendation for his deferment, until his services are needed in a professional capacity, will be made.

"Q. If a physician is physically disqualified for a commission, is he still subject to the draft?

"A. The physical requirements for officers are higher than they are for enlisted men, but under the modified requirements for 'limited service' in the Medical Corps most, if not all, physicians who meet the requirements for enlisted men will be eligible for commissions. If not, the physician concerned should consult the chairman of his State Procurement and Assignment Service Committee relative to service in a war industry or some other essential civilian service.

"Q. In determining the number of physicians needed to care for the civilian population, are rural communities considered on the same basis as larger cities?

"A. A special committee is now working on the determination of minimum quotas of physicians for civilian medical care. In their studies consideration will be given to the density of the population, the ease of transportation, the availability of hospital service and other factors.

"Q. Is the local draft board or the Procurement and Assignment Service to determine whether a doctor is necessary in his local community?

"A. The legal responsibility for deciding whether any individual who is registered with Selective Service shall be given deferment rests with his local Selective Service board. However, General Hershey has directed local boards, when considering the classification of physicians, dentists or veterinarians, to secure the advice of the state committee of the Procurement and Assignment Service as to whether the individual under consideration is 'essential' for the care of the civilian population in his community or whether he can be considered available for service elsewhere.

"Q. How many physicians are there in the United States under 35 years of age? Under 45?

"A. Of the 152,923 physicians in private practice in the continental United States, 37,753, or 24.7 per cent, are under 35 years of age, 35,240, or 23.0 per cent, are 35-44 years of age, 26,573, or 17.4 per cent, are 45-54 years of age, 26,076, or 17.1 per cent, are 55-64 years of age, 11,915, or 7.8 per cent, are 65-69 years of age, 8,112, or 5.3 per cent, are 70-74 years of age and 7,233, or 4.7 per cent, are 75 and over.

"Q. Do you expect the needs of the armed forces to be filled by voluntary enlistment? If not, what is to be the procedure?

"A. It is the firm conviction of the directing board of the Procurement and Assignment Service that the physicians of this country will willingly accept the assignments requested of them in meeting the medical needs of the nation during the war emergency. The executive order of the President establishing the Procurement and Assignment Service states that Mr. McNutt may 'instruct the Agency to draft legislation, which may be necessary to submit to the Congress providing for the involuntary recruitment of medical, dental and veterinary personnel, in the event the exigencies of the national emergency appear to require it.' The directing board, however, has given no thought to such legislation because it is convinced that it will not be necessary."

TRACHOMA CAN BE TREATED EFFECTIVELY

Acute trachoma, a contagious granular inflammation of the membrane that lines the eyelids and covers the eyeball, can be treated so successfully that less than 1 per cent of the eyes infected will become industrially blind, Harry S. Gradle, M.D., Chicago, declares in *The Journal of the American Medical Association* for July 4 in a report on the visual results obtained in the trachoma clinics of southern Illinois. His report lists the results from treating two groups of patients in stages 1 and 2 of the disease, 328 eyes in one group being treated with sulfanilamide and 493 eyes in the other group being treated by other means.

"From the final visual standpoint," he says, "systemic treatment with sulfanilamide is preferable to purely local treatment because: (a) twice as many eyes show definite improvement in vision and (b) less than half as many eyes show positive losses in vision."

INDIANA COAL MINE ACCIDENTS

JAMES B. MAPLE, M.D.
SULLIVAN

The question of the care of injuries received in Indiana coal mines carries with it not only the care of the injured men but also the attempts made in order to avoid and prevent these accidents.

The Bureau of Mines and Mining attempts to analyze the various serious accidents and to find out, if possible, why they occur and how each one might have been prevented. The mining companies have tried to establish rules and conditions so as to minimize the number of accidents which occur. But, as with other types of accidents, it is hard to keep out error and carelessness on the part of the human element. Men still continue to take chances in attempts to avoid work and to hurry things along: for instance, a cutting machine operator found it necessary to put a skid under the cutting bar. He tried to do this with the cutting chain in motion with the result that the cutting bits caught the skid and threw it against his leg breaking his tibia and fibula. His machine should have been stopped during the placing of the skid but that would have taken time and he was in a hurry. As a result he had a six months' time loss from work.

In another case the motorman and trip rider were trying to get an empty car back on the track. They were using a tie in trying to pry the car back when the tie slipped and the motor crushed the motorman between the motor and the car, resulting in a fracture of the pelvis and the femur. In this case the rules are to use a jack or, when possible, pull the car up onto the track. They sought to save a bit of time and work by using the tie lying close by rather than to take time to get a jack, and as a result the motorman has a probable two-year time loss.

Causes of accidents tend to follow certain patterns and the Bureau of Mine Inspectors and the mine companies have done much to eliminate known hazards. Men are trained in First Aid courses and in most mines you will find such trained men pretty well scattered throughout the workings. These are especially trained in the immediate care of injured men so as to prevent any further damage and to bring them to the surface ready for removal by ambulance to the nearest hospital. Usually by the time the man reaches the top a physician is at hand to take charge from thence on.

There is a second group of trained men known as Rescue Teams and these men are not only trained in First Aid but also have been trained to fight fire and use gas masks to rescue men caught in gas explosions. These masks have tanks of

PROCUREMENT AND ASSIGNMENT SERVICE QUOTES INDUSTRIAL NEEDS

SAMUEL F. SEELEY, M.D.
Executive Officer, Directing Board of Procurement and Assignment Service for Physicians, Dentists and Veterinarians
WASHINGTON, D.C.

The role of industry in the war effort needs no emphasis. The necessity of adequate medical care for the industrial worker and his dependents ranks second only to the care of the men engaged in combat. The Procurement and Assignment Service is deeply concerned with the provisions for adequate numbers of physicians to care for the industrial worker.

On the enrollment forms and questionnaires of April, provisions were made for the statement of preference of those willing to enter industrial medicine or to be dislocated to other civil communities to care for the workers and their dependents. In the very near futnre, a tabulation of all who have indicated their willingness to participate in this capacity will be forwarded to each state chairman of the Procurement and Assignment Service.

I would like to take this opportunity to invite those responsible for the health of the industrial worker to call upon their State Chairmen for Physicians for the names of those willing to serve the industrial population. It is the sincere hope of this office that arrangements will be made between the employing organization and those prepared to serve in this important endeavor with minimum effort.

Each state has been assigned a quota of the physicians to meet the needs of the armed forces. As the quota is met, the War Department withdraws its recruiting boards and the state chairmen are advised to certify as available only those under thirty-seven of the rural areas in excess of one doctor per 1,500 population or in the urban areas where men of this age-group are logically spared. In this manner, the physicians remaining in each state are asked to make every effort to facilitate the redistribution of physicians within the state border to satisfy the needs of industry. Those above military age, or if under forty-five those who have been rejected for military service, should participate in an essential capacity. There is no more important position in civil life than the meeting of the health needs of the industrial worker and his dependents.

oxygen attached and will protect the worker long enough for him to perform his share in the rescue. These men also are instructed in the best ways to effect the rescue of miners caught by slate falls, et cetera.

For years slate and coal falls caused the most severe and frequent accidents. This was largely due to the fact that men worked ahead of timber protection, so there was at all times considerable roof that was not properly supported by timber props and the men also had to work too close to the face of the coal so that when it would fall it often fell upon them, causing crushing injuries. At the present time, in a properly conducted mechanized mine, the men are instructed to stay behind the advance line of timbering at all times and never get out in the space which lies between the face of the coal and the line of timber props. The timbers are so placed that only the front end of the cutting machine or the loading machine is in the untimbered space and the operators of the machines are behind and protected by this method of timbering. This way of timbering has reduced the number of this type of accidents to practically none.

Accidents to the hands occur chiefly from falling pieces of coal or from throwing switches for trips. The accidents caused by throwing track-switches have been eliminated by the very simple expedient of extending the switch arm high enough so the switch can be thrown by the men on the motor without getting off or getting their hands underneath switch arms or cars. When mechanized loading first started there were numerous accidents to hands and legs due to chunks of coal rolling from the loading machine onto them. This has been corrected by building a metal shield against the loose coal so that the hands and feet are protected.

Mechanical loading has reduced the number of accidents in the mines, for it gives the boss better control over his men and he can secure better timbering and other working conditions. There is one face boss (section boss) to about every twenty men so he can inspect all the rooms and workings under his care at least once every hour. This allows him a chance to find gas, bad roof or other hazards in time to prevent accidents.

The reduction of the hazard of gas and dust explosions has come about in several ways. The volume of fresh air sent into the mine has been increased, and the currents of air have been better directed into the outer workings of the mine, in this way reducing the chance for explosive concentrations of gases. Rock-dusting with finely powdered lime rock is probably the greatest safeguard. This is sprayed onto the roof, ribs and floor of the entire mine up to within forty-five feet of the face. In portions of the mine where there is much activity this is done every few weeks, while in other places it may require only one or two dustings per year. This dusting is done by a compressor on the motor and a three-inch hose. The concentration of this dust must be such that the mine inspector may find sixty-five per cent of lime dust in the samples of dust he takes at various places over the mine.

The number of fire bosses has been increased, so there are more of them checking and watching the mine for gas. The section boss also carries a Wolfe or other safety light and is instructed to proceed ahead of his group of men as they go into the workings of the mine, so the immediate presence of gas may be discovered before the men go in to work.

Another important safeguard against gas is the immediate sealing off of all old works as soon as they are cleaned out so that it only requires the sealing off of one working place to close out an entire section when it is finally worked out.

The air blown into the mine is now air conditioned as to temperature and moisture. This is a very important help in preventing rock and slate falls, since in the fall of the year it gets away from the cold air striking the hot roof, and the hot air striking the cold roof in the spring, both of which have caused many bad rock falls in the old days.

Fire in the mine is today better combated because hourly inspection of the mine enables earlier detection and the use of rock dust blown upon it puts the fire out quickly, whereas in the old method which required water great difficulty was encountered in smothering a fire due to the fact that water would run off the burning pile of coal.

The use of hard caps for the head and steel-toed shoes for the feet has very markedly decreased accidents to the scalp, metatarsals and phalanges. Shooting with compressed air also has cut out the injuries formerly sustained by shot firers from premature explosions or going back on a delayed or windy shot. Liquid air mixed with charcoal is sometimes used but is not as safe as shooting with compressed air.

Electrical burns from fuse, switch and cable flashes still occur although various types of housing has reduced the number. They still occur chiefly because men fail to turn off the current before attempting to make repairs or they twist the cable in the wrong direction.

The total number of industrial accidents reported in Indiana from July 1, 1939, to June 30, 1940, amounted to 25,514. Coal miners suffered more of these by far than men in any other occupation, their total number being 1,030 accidents for the year. From July 1, 1940, to June 30, 1941, there occurred a total of 25,350 accidents in the state, of which the miners suffered 873, again having more than any other occupation.

Fatal accidents in the coal mining industry in the past five years are shown in Table I. Just what percentage of these cases were immediate deaths and what percentage died later in the hospital I am unable to learn.

The character of the injury suffered by the miner varies greatly as the following list will show. These injuries are often multiple but I have only listed the most important one suffered.

TABLE I

Cause of Death	1937-38	1938-39	1939-40	1940-41	1941-42
Fall of roof (slate or coal)	14	10	4	9	7
Haulage	3	4	2	7	1
Electrocution	1	2	2	1	1
Explosion of gas	22	....	....	16	....
Runaway mine cars	3	....	....	....	....
Cutting machine	....	....	....	2	....
Mechanical Machinery (loading mach., etc.)	1	....	....	....	....
Fall to bottom of shaft	....	....	....	1	....
Powder explosion	....	....	1	....	....
Falling cage	1	....	1	....	....
Run over by R. R. cars	1	....	....	....	....
Suffocation	....	1	....	....	....
Hit on head by pick	....	....	1	....	....
Airdox	....	....	....	....	1
Total Deaths	46	17	11	36	10

This list covers the last five hundred injuries coming to our offices and represents a period during which effort at the prevention of accidents has been at its peak. If a similar period previous to this time had been checked, the number of serious crushing injuries to vertebrae and pelvis would have shown a heavy increase.

Contusions alone 70; contusions with cuts or lacerations 53; contusions and lacerations with infection 14; contusion of rectum 1; scalp wounds 7; incised wounds 2; traumatic bursitis 8; traumatic arthritis 1; teeth knocked out 3; crushing injuries to fingers 3, to hand 2, to ankle 1; palmar abscess from contusion 2, from puncture wound 1.

Foreign body embedded in fingers 4, in hand 2, in wrist 2, eye 6; wounds of eye 4; loss of eye 1; cerebral concussion 3; kidney injury, hydronephrosis 1; hematuria 11; neuroses following injury 7; gonorrheal epididymitis causing claim of injury 3; bronchopneumonia from breathing cable flash smoke 1; inguinal hernia 12; ventral hernia 1; osteoarthritis of the spine causing claim of injury 18, of the finger 1; periostitis of phalanges 2; amputations of finger 15, toes 4, leg below knee 1.

Sprains: lumbar region 21, sacro iliac 2, ankle 8, leg 3, groin 4, knee 3, hip 2, shoulder 2, abdominal wall 3, neck 2, arm 1, fingers 2; dislocations of thumb 3, hip 1, knee 2, oscalcis 1; injury to intervertebral disc 2.

Fractures: lumbar vertebrae 21; dorsal vertebra 2; sacrum 2; ribs 25; phalanx of hand 21, of foot 28; metatarsals 13; metacarpals 6; pelvis 5; femur 5; both femur 1; tibia alone 7; fibula alone 5; tibia and fibula 8; radius 5; ulna 4; radius and ulna 1; clavicle 5; scapula 4; olecranon 1; nose 1; patella 2; scaphoid 3; cuboid 1; skull 3; mandible 1.

Burns: Gas, 2nd degree, head 1; 3rd degree, head, hands, wrists, neck, arms, 5. Electric, cable flash, fuses, 3rd degree, hands, arms 7, leg 1, eyes 1. Lime burns, hands 1. Burns from hot water pipe 1.

Fatalities: crushing injuries by motor 1, by slate fall 1, vertebral fractures 2.

The care of these injured men starts almost immediately. At the place of injury fellow miners trained in First Aid work care for such things as the application of tourniquets, proper handling of fractures, etc., following which the man is brought to the surface where he is met by a physician and ambulance ready for speedy transportation to the nearest hospital.

On occasions the physician may have to go down into the mine to the scene of the accident. If the cage is damaged and out of commission, he may even have to go down the manway. There is no mine in Indiana which is more than eighteen miles from the nearest hospital, and most mines are much closer, so that the time elapse from the occurence of the injury to the provision of hospital care is very short. The hospitals used are those of Evansville, Princeton, Terre Haute, Sullivan, Linton, Clinton, Brazil and Washington. These hospitals are amply equipped to care for the types of injuries which occur in this occupation.

For the most part the treatment used is that which is customary for the same type of accident in any field of work. Perhaps the chief difference lies in the necessity for much fracture equipment, such as the Roger-Anderson splints, etc. Most fractures of the long bones are treated with pins and plaster and made ambulatory where possible. Open reduction is seldom used. Fractures of the vertebrae are treated by hyperextension and cast, sometimes by laminectomy. Recently, injuries causing fracture of the skull have been treated expectantly rather than by immediate operation, but the results have apparently not been so good as in early interference.

Lacerations are washed out with soap and water, followed by alcohol, ether and merthiolate. Then debridement is used to remove dead tissue and all foreign particles of slate or coal dust. Especial care is taken to remove all coal since it makes considerable disfigurement by causing a black scar. Recently sulfathiazole powder has been used in these wounds.

Burns at the present time are treated first for shock, if present, then the burned areas are cleansed and treated by Dakin's solution in a boric acid ointment base or with butesin picrate. Following the first dressing or two a cod liver oil ointment is used in many cases. As soon as possible the burned areas are left open to the air for scab formation. If any pus occurs under the scabs it is soaked out with hot boric acid packs. Tannic acid cannot be used for mine burns because of the dirt which is always found in these wounds.

One of the problems of crushing mine injuries is the question as to whether or not injury has been done internally, as rupture or damage of the liver, spleen, stomach, intestines, kidneys, bladder or mesentery. The speedy determination of this is necessary to the survival of the patient.

A survey of the entire coal field in Indiana shows that while the mining industry is a most hazardous occupation it has excellent facilities for the care of its injured and is constantly seeking to find better protection for its workers.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association
Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis....Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend....Dec. 31, 1944

AUGUST, 1942

Editorials

TIME LOSS IS WAR LOSS

There are approximately fifty million wage-earners in the United States. Among these workers it has been found that more than four hundred million days are lost per year on account of absenteeism due to sickness, with a resultant yearly cost of over three billion dollars. As a part of our contribution to winning the war, we must do everything possible to save the time lost as a result of sickness. Neither metal nor rubber, money nor man-power, but TIME shows the greatest shortage. Our present needs require a strengthening and broadening of the entire industrial health program all along the line from private industry to local, state and federal jurisdiction. As emphasized by Surgeon General Parran of the United States Public Health Service, "Industrial hygiene must keep pace with the needs arising from high speed assembly lines, which will employ some fifteen million men and women within the year. Great Britain learned that it is urgently necessary to have the full-time services of a trained industrial physician in every large plant. Less than one-seventh of our workers have that service now."

A further indication of the need for promoting more adequate health services for war-time workers is the fact that in 1941 there was a twelve per cent increase in disabling cases of sickness and non-industrial injuries among male employees of various industries as compared with the mean for the last ten years. Time lost from work on account of sickness, under present conditions, is a potential form of unintentional sabotage. This hidden waste must be brought under better control as a part of our war efforts. As recently stated by Mr. Paul V. McNutt, "Although modern warfare depends on industry just as much as on armed forces, measures to maintain the health and morale of defense workers are far inferior." Moreover, it has been said that, "in time of peace, industrial hygiene is a tool; in time of war, we must make it a weapon."

One of the chief and immediate needs in connection with the national emergency calls not only for more and better undergraduate instruction in industrial health in our medical schools but also for the organization of short postgraduate courses or institutes in strategic centers throughout the United States. One result of the marked advance in the development of Bureaus of Industrial Hygiene in state and local governments has been an increased demand for trained personnel, which it has been difficult to meet. Many war-production industries also are finding it difficult to obtain the services of properly qualified medical personnel. With the practical exhaustion of the supply of competent industrial physicians we must depend largely on physicians active in community practice.

The government is spending millions of dollars on the industrial phase of the war effort in Indiana. This new industry will for the most part be permanent and it is fair to assume that as a result of this present situation Indiana will become a great industrial state and will no longer be considered as essentially an agricultural state.

This change in our economy will require a radical change in the thinking, as well as the attitude of the medical profession of Indiana, whether or not we shall have to be thinking of industrial medicine and surgery, or of problems in prevention as they affect large centers of population, but we must begin to think of patients in terms of "health and efficiency" and the prevention of economic waste by reason of lost time from industry. We must think of unemployment and its effect on the health of the individual and the community. We must all along the line think of mass sickness and its causes, as well as individual sickness and its causes.

The present industrial development in our state is positively fantastic, and this colossal program will bring new medical, social and economic problems of equal proportion.

Much of the health legislation now on our statute books is antiquated and inadequate for present needs. The rapidly expanding program of development is bringing daily new problems for which there is no precedent. Our next legislature will need advice and guidance in formulating new laws for the protection of our citizens.

The individual physician, the Indiana State Medical Association and the Indiana State Board of Health MUST be able to supply the leadership and the knowledge necessary in drafting new health laws so urgently needed in order to cope with the changing conditions.

PHYSICIAN REPLACEMENT

With thousands of medical men now in the armed forces of the nation and with additional thousands ready to enlist during the next few months, the problem of replacement becomes an acute one. Paul McNutt, in an article recently published in the *Journal of the American Medical Association*, made it definitely clear that some states already had furnished about all the physicians that could be spared, whereas other states would have to supply larger quotas.

It is not the intention to deplete the supply of physicians to the extent that any community will suffer from lack of medical care; rather it is planned that adequate medical care must be assured every community. In working out a plan to bring this about due care must be exercised in many directions.

Of paramount importance is the field which in recent years has become known as "industrial medicine." The industries of the United States are "at war"; that is, industry is now engaged in a twenty-four-hour-a-day materiel program, a program that must be continued throughout the duration. In carrying out this industrial program, medicine plays a most important role. Employes must be kept at the top peak of good health, and they must have adequate care for the injuries that are bound to occur when plants are in full production.

The biggest job of present-day medicine is the manning of industry — all other considerations must in some degree be secondary. And, by way of digression for the moment, it is our belief that post-war times will find "industrial medicine" more firmly established than ever before; it will have become a specialty in itself. Manufacturing heads will have observed the value of having a full-time medical and surgical corps in their organization. The supervision of the health of the employe is now and will continue to be a matter of greatest importance.

F. W. Griffith, in his presidential address before the recent annual meeting of the North Carolina Medical Society, pointed out that "in ordinary times this might be an infringement on the rights of the family physician. These are not ordinary times and the interests of the individual physician must be secondary to the interests of the country. An employer might feel that he has no responsibility for the prevention of an employe's illness not connected with his employment, but time lost by a sick workman retards production regardless of when, where or how the illness was contracted."

Returning to our subject, what can be done to readjust the practice of medicine in those communities that have furnished a large percentage of their medical population for war duty? The first answer is that the physicians remaining at home will have to do more work; their hours will have to be longer, vacations will have to be curtailed, and in general their professional life will, for the time, be greatly altered. Men in the older groups will find it necessary to take on additional duties; some of them taking over certain phases of industrial work, such as devoting one to three or four hours daily in doing the minor dressings in the plant hospitals. This group can also well take care of the physical examinations of plant employes, which is regarded as a highly important matter these days.

PHYSICIAN'S RESPONSIBILITY TO INDUSTRY

FRANK H. LAHEY, M.D.

Chairman, Directing Board,

Procurement and Assignment Service

BOSTON, MASSACHUSETTS

In our interest and enthusiasm to support our armed forces, we in medicine are apt to lose sight to some extent of the needs of industry and the civilian population. This is something every thoughtful person will admit that we should not do. It is true that to win a war we must have the armed forces, but we must likewise have the arms. We must not lose sight of the fact that while glamour, romance and heroism are deservedly associated with those who are in the armed forces, without arms there is no effectiveness. Without industry there are no arms. Without health there is no industry. We must likewise realize that not only is one of the very important duties of the physician with the armed forces, but an equally important one is the return of the wounded to active duty. Just as every member of the armed forces who is returned to duty is the equal of several as yet untrained men, so is every trained industrial worker who is returned to duty the equal of several untrained industrial workers. Not until the medical profession places its responsibility to industry on the same level as it does for the armed forces will we approach the problem realistically and from an adequately practical aspect.

We must recognize that a twenty-four hour working plan increases the number of industrial accidents. We must recognize that we cannot ask the defense worker in certain areas to leave his family at home, and, therefore, unexpected and unavoidable increases in population in defense areas must be cared for. As we realize the needs of medicine in industry, we must realize equally the need for the care of the families of those who work in industry. So urgent is the demand at the present time for physicians for the armed forces that there is distinctly a tendency for this need to overshadow the need of medical care for those who are working in industry. This need will, however, as the war is prolonged, force itself upon our attention and with it will be presented opportunities for those who, because of physical defects or years, are unable to obtain places with the armed forces. Those who serve in these capacities will, in my opinion, exclusive of the hazard to life, be as deserving of the country's gratitude as those assigned to Army, Navy and Aviation.

Next we come to the discussion of a rather "delicate" matter, that of releasing the young medical men who have been acting as assistants, associates, or what have you. Of late years it has become customary for the physician whose practice has reached the "large" stage to employ one or two assistants. The plan worked out very satisfactorily in most instances. It meant a little less work for the older man, gave him opportunity for additional rest and, if he were so inclined, occasion to take postgraduate work. And one of the by-products was, of course, an increase in business.

These assistants are for the most part of the younger group and as such are eligible for immediate induction into the medical department of the armed forces; however, there are some who, for physical reasons, are not eligible. In such cases we believe that it would be highly advantageous for them to leave the former setup and go out "on their own," perhaps in the same community, perhaps to some point where a physician is much needed because of the former resident doctor having left for the service.

Furthermore, the asking for deferment of a young physician because he is engaged in industrial work should be most carefully considered ere the request is made; few physicians are indispensable to the point where they cannot be replaced, and the problem of replacement should be carefully gone over before a deferment is asked.

There is another phase to this — the young physician who may be deferred under these conditions will find himself in a most embarrassing situation as the war progresses. One of these days folk will begin to ask questions as to why this or that physician is not in service, and as the demand for additional medical men in the armed forces increase these questions will become more pointed and more direct. We cannot afford to go too far in the matter of deferment; we must be certain that such a deferment is absolutely necessary.

We recently saw a letter, addressed to a county procurement committee, from the head of a manufacturing plant engaged in war work. In that letter he stated that he wanted deferment for one of his physicians and that if the local committee did not grant it he would appeal to Washington. That, of course, is all right, but did that man inquire about replacement?; is he certain that an efficient replacement cannot be made?

The whole matter is a complex one, one that must be worked out by the medical profession and one that *will* be worked out.

THE RAILROADS IN WARTIME

We are constrained to pause for a moment and offer a bit of praise to one of our larger industries, one that had but few "nice" things said about it for several decades — the railroads of our country. For a good many years they have endeavored to "live down" a rather unsavory reputation, a reputation gained years and years ago, in the days of alleged "watered stock," in the days when the Goulds and the Vanderbilts, the Harrimans and the Hills, together with a host of others, were engaged in a fight over the control of this or that railroad property.

The railroads have had a long succession of lean years, what with the industrial depression and the competition from the automotives. The buses and the trucks, together with the private cars, well nigh ruined the railroads. Their right of way had not been kept up, their motive power was not in the best of repair, and their passenger and freight equipment left much to be desired.

So, when the war came upon us and the railroads were called upon to do almost the impossible, they simply buckled down to it and are making an excellent job of it. They are moving more tonnage than ever before in history; troop movements by the thousands are handled every day; and all the while they are carrying on their local, routine business. Few new freight cars are available; few new engines are to be had; yet, withal, the railroads are carrying on, meeting the ever-increasing load put upon them by a warring nation.

There are, of course, inconveniences; the railroads have advised that vacation travel, for example, is not what it was. They will still run trains, but one cannot be sure of certain accommodations. One cannot even be sure that the accommodations already engaged will be his. Should some Army man be called in an emergency, Pullman space must be found for him — and it will be found — his job is, of course, a bit more important than that of the civilian.

To all this we have no objection; we are willing — gladly so — to defer our travel for the man of the Army. When we have to await the passing of a long freight train, as we often do in a city boasting of almost a score of railroads, we take it complacently. We say to ourselves, "All right, these cars are carrying things someplace; someplace where they are going to do real things in the war effort." When we look up a train schedule, only to find that the train has been discontinued, we do not fret about it — it is just the result of the war!

Railroad folk are working—from the president down to the lowest job in the entire system; they do not have all the equipment they need and it is therefore necessary to utilize all that they have and to keep it in peak condition; hence, the men in the "back shop," where power-equipment is repaired, are busier now than at any time in several decades. Extra cars are added to freight trains and more mileage added to the engines—all in one big effort to further the war interests.

Consequently, we have forgotten the many criticisms we have made in the past; we have forgotten how to rail about a late train; we do not expect the luxuries afforded by travel in the past—we just are thankful for our American railroad system, for what they are doing and the spirit in which these things are done.

THE FRENCH LICK SESSION

The annual meeting of the Indiana State Medical Association will be held at French Lick as planned; this decision having been made by the Executive Committee after a very careful survey of the situation. For some time past Coordinator Eastman has been suggesting that conventions be forgotten for the duration. However, it also had been suggested that conventions having to do with the war effort would continue to get the "go" sign.

We feel that a medical convention, such as ours, is a war-time convention; as a matter of fact, the scientific program — which is about all there will be to the convention — will have a definite war flavor. The recreational features will be omitted this year, that is, the annual golf and shooting programs will not be held; the convention is to be streamlined to the occasion.

The smoker and the annual banquet will be held as usual, and the full complement of section meetings will be carried out as planned. We have of late been interested in what the Indiana press has had to say about curtailment of conventions; practically every paper that has expressed an opinion in the matter has been highly in favor of a continuation of such programs, even though all the details of former years be not carried out. So, go ahead with your plans for September 29-October 1. Come next Fall, Hoosier physicians will need a bit of relaxation, a bit of tonic in preparation for the grind of the coming winter. But it will be advisable to make your reservations right now if you have not already attended to that matter. Arrange to get down there during the first day so that you may be all set for the Council session and the meeting of the House of Delegates — then the get-together smoker in the evening.

Bright and early the next morning find your way to the opening general session, there to feast on the good things provided in the scientific program.

It might be well to remind our folk that the Atlantic City session of the American Medical Association, held in June, was outstanding; the attendance exceeded all expectations notwithstanding the gas ration and many other deterrents. Doctors are thoroughly alert to the war situation and want to hear the very latest in all that pertains to war medicine.

We'll be seeing you at French Lick next September!

THE SHORTAGE OF NURSING CARE

One of the outstanding problems of the present war is that of nursing care. Only a few years ago there was considerable discussion concerning a reduction in the number of students entering nurses training courses, some feeling that we had too many nurses. But the present war situation has changed that notion; today there is a definite shortage of well-trained nurses. In our own University hospitals this has become a problem, as well as nursing care in the private home. Industry has taken on a new complement of nurses, as well as other lines of endeavor throughout the nation.

In many of our hospitals the student nurses find themselves engaged in duties that were not theirs in former years until they had become senior students; even the first year students are being assigned duties well in advance of their class ratings. Several thousand nurses who long since had retired from active duty and had entered upon a home-life of their own are now back in service, and the demand is for more and yet more nurses.

Several suggestions have been offered as a solution of the problem, none of which has been generally adopted, each community seeking to handle the problem locally. One suggestion would seem to merit some rather deep study and investigation. This comes to us from the American Red Cross, with the heading "Chapter Organization and Administration of Red Cross Volunteer Nurses Aid Corps." As we read this it seems that the plan involves the training of a suggested one hundred thousand women to serve as *aides* to graduate nurses. The age-group from which these women are to be chosen is eighteen to fifty; they must be intelligent and physically fit, willing to take a training course of eighty hours, and able to serve one hundred fifty hours per year *without pay*.

Generally speaking, the duties of these aide nurses would be to assist in many of the routine duties of registered nurses, thus adding materially to the daily accomplishments of the latter. For example, they could bathe the patients, record temperature, pulse and respiratory findings, give evening care, assist in the feeding of patients, render bed pan service, note intake of liquids and the output of urine and evacuations, assist patients in dressing, answer hall lights and, in all, do the thousand and one things that take so much of the time of the regular nurse.

In dispensaries and clinics, as well as in the first aid departments in our industrial plants, women with such training could be of invaluable assistance although, of course, in such instances they should be paid for their services. As a matter of fact, we do not quite get the suggestion of serving a definite number of hours annually without pay, save in a few instances, but that is a minor point.

Just how the suggestion would work out and whether the plan is in successful operation at some point at the present time we do not know; we have merely investigated the matter through the literature furnished us on the subject. It does seem that there is much merit to the plan and that with some modifications it would be adaptable in many situations where the shortage of nurses is most acute. We trust that at some time in the future we may be able to report more definitely just how the plan operates.

WHAT THE YOUNG ARMY MEDICAL OFFICER THINKS ABOUT IT!

We have read so many comments from Hoosier medical officers now in service throughout the country and the world that it seems they deserve a special article. Last month THE JOURNAL quoted rather extensively from a personal letter sent by one of these young men in which he made it clear that not only was he satisfied with his lot, but he felt that he finally had reached the place where he really *belonged*.

Herewith is quoted the full letter written to Colonel Bird by another Hoosier medic:

"I am delighted to be able to inform you that just exactly one month from the day of reporting for duty I am on my way to a destination which I think I know, but am neither sure of nor at liberty to divulge. This speed is unusual and came about through physical disqualification of the officer who was taking the gang across, and I happened to be the only available man who was considered competent for the job. (By the way, my C. O. at Camp ———, was a classmate of Sam Seeley.)

"Colonel ——— is a good egg and the next Indiana medic who comes under him will not find himself with two strikes against him on account of me.

"Tell Tommy and Austin "hello" for me. I hope to bring each of you a nicely tanned Jap skin, but in any event I hope to bring back the ——th, alive. My pledge to you, who helped get me into this man's army, is this: Always and in every way I shall try to be the family doctor to each of these boys. And I believe that if this creed can be disseminated to the doctors of Indiana that you will forward the war effort a great deal.

"These kids are brave — but at times bewildered; they don't need to be toughened up, but instead someone with shoulder ornaments who can almost be a mother during an occasional weak moment. I know you envy me in this job and I know damned well that I'm not man enough to take the kicks, unleavened with glory, as you are having to do. Yours, etc."

Here we have but another of those intimate, convincing letters that from time to time filter back to Indiana — this one written by a young chap in the service but thirty days only to find himself in a mighty important job of attending to the physical and mental needs of a group of young soldiers headed for where they do not know — to do those things soldiers are called upon to do without the asking of questions.

This young first lieutenant, instead of taking things comfortably and at ease on what is probably his first ocean voyage, mixes with "his men"; evidently he is an observing chap, since he speaks of "mothering" this or that young fellow who is a bit nostalgic. He means to see to it that the men under his immediate care have *real* attention; attention of the personal sort.

Not all the "soldier letters" we have seen, referring to the Medical Corps, come from the officers themselves. We have read letters from the draftees, detailing their experiences with the "Army doctors," and in most of them we have been impressed with the fact that the enlisted men are aware of the mighty good medical care they are getting.

From our personal contacts and observations we should say that the majority of enlisted medical men are pleased with their lot; they know they have a job to do — a definite part of the Army program — and they are doing it well. We are, of course, all human and there are a few who are discontents, do not like the idea of being dislocated from their homes and business and that sort of thing. So, when we are permitted to read a letter such as quoted above it gives us a sense of deeper security, based on the knowledge that our Army Medical Men are doing their bit — plus.

WAR BONDS

The airplanes are flying throughout the world. Uncle Sam's pilots and gunners, to say nothing of the bombers, are raising plenty of H--- with the Japs et al. Tanks are rolling off the assembly lines in every part of the country, headed for the various fields of war. Ammunition is being poured forth from countless plants; all for the one purpose — that of SAVING AMERICA!

All this costs money; the present tax-rate cannot supply the needed funds for all these purposes, so other means had to be devised.

War Bonds would seem to be the answer; people from every walk of life are thronging — and that word is properly used — to the counters where these War Bonds are to be had.

But there is not yet enough demand for War Bonds; the Minute Men are now being called out to speed up these sales. Now we are advised that in the event such sales are not satisfactory, a new plan will be devised whereby every citizen of the country *will be told* just what he shall do. We trust this will not be necessary; we believe the American people will do more than their bit if the matter is properly placed before them.

No Indiana physician can afford not to buy War Bonds; currently they are just about the best investment one can make. Get the War Bond habit, make it a *habit* that you cannot break. If you begin to make regular visits to your bank, post office, or any other place where War Bonds are sold, you will be surprised how soon the habit becomes fixed; and you also will be surprised at the degree of pleasure you will have from thumbing over your ever-increasing stack of bonds.

For the average doctor we recommend the E Bonds, denomination of $25.00, costing $18.75. They are a good-looking bit of paper, increase in value as the years go by, and will buy lots and lots of bullets and bombs — things that are being used most effectively these days.

PREMARITAL EXAMINATION LAWS IN THE UNITED STATES

"Any public health measure should accomplish its objective with the least possible infringement on the normal activities of the citizenry," say Forster and Shaughnessy in the *J.A.M.A.*, Vol. 118, March 7, 1942, pages 790 to 797.

In this authoritative survey of the thirty existing premartial examination laws in the United States, the authors examine the scope and effect of these laws in detail along five lines:

1. What is the scope of the examination?
2. What laboratory tests are required?
3. What laboratories are approved for making the required tests?
4. Who is empowered to examine?
5. Under what circumstances, if any, may infected persons, or those whose laboratory tests are reported as positive, secure licenses to marry?

That there is a wide diversity of laws even in these few regards is probably not surprising since each law is, to a considerable extent, the product of the legislatures of the various states. However, a gradual improvement in the requirements and instrumentation of these laws is noted, and in some states the laws have been revised to keep abreast of the modern developments. All except three of the laws require a serologic or blood test for syphilis in common with the first really effective prenuptial examination statute as passed by the Connecticut legislature in 1935, although the *modus operandi* may differ widely not only in the method of accomplishing the blood test but in the many other characteristics of the laws.

The greatest single objection to most of the laws now in effect is the lack of reciprocity between states, particularly in the acceptance of laboratory reports from out-of-state laboratories and of examination certificates signed by out-of-state physicians. For this reason it would appear wise to establish reasonably uniform requirements and procedures for interstate marriages as quickly as legal and administrative barriers can be surmounted. This end is rendered easy of accomplishment with plenty of excellent laboratory facilities in most states, and the evaluation studies of the United States Public Health Service and other agencies as a basis for evaluation of these laboratories. It is suggested that a symposium or round-table sponsored by some national organization interested in venereal disease control, or in public health generally, would be timely, especially if the fruits of its discussions should become available well in advance of the 1943 legislative sessions.

For eight-point program of Wayne-Union County Medical Society, appealing for patience on the part of the public in its demands upon the medical profession in the present emergency, see page 447.

Editorial Notes

One of the hospital problems, in addition to that of getting the necessary number of interns, is that of the resident physician. As we see it, this practice is just about out for the duration. The intern, completing his year, is in most instances no longer available for a residency; he already has "signed up" and the Army is awaiting him.

No little complaint is heard these days from holders of hospitalization insurance when they learn that due to crowded conditions of many of our hospitals they cannot have the choicest of rooms. One such complaint was made because children in the family who had gone in for a tonsillectomy were "parked" in a hospital corridor for a few hours following operation.

The *Elkhart News*, speaking of health in war-times, says: "Under war-time conditions it becomes a patriotic duty for the civilian to adopt for himself something approximating the Spartan regimen that distinguishes life in the armed forces. This is total war and those who stay at home must keep the community health strong, so that after the war is won we may be ready for the rigors of peace."

Well, we finally have given up — referring to an attempt to raise peas in our Victory garden; first came the rats from a garage across the alley, who ate the young shoots as fast as they came through the ground. We got rid of the rats and made a replanting, this time using the late, tall variety of peas. They came along nicely and we scoured the neighborhood, gathering branches of all sorts for vine support. Then the sparrows moved in and in a short time had "deleafed" two long rows — we quit trying!

General Lewis B. Hershey, addressing the Twelfth District Medical Society, is quoted as saying that "someone has remarked that it takes fifteen to twenty men behind the front to keep one man in the front. Well, we've got to do better than that; we've got to produce more with fewer men." Industry is being told the same thing, according to an informant. While in certain phases of industry there has for years been an apprentice-period of four years, it is now advocated that this period will have to be reduced to *four months*. In other words, mechanization in industry is far ahead of the apprentice system. And it should be remembered that until the past year or two there were practically no apprentices in the skilled trades of industry for a period of some ten years. Veritably, we are living and learning!

Much uncertainty as to the final classification of registrants will be relieved soon; the United States Employment Service is preparing a list of activities and occupations deemed essential to the War Program. This, quoting General Hershey, "will provide a guide for government agencies represented on the War Manpower Commission, including Selective Service, and will give to our local boards a yardstick for measuring applications for occupational deferments."

There is an outcropping of a number of collection agencies. We have information that several new ones are now soliciting the physicians in Indiana, and this is probably due to the emergency where many physicians are closing their practices and leaving for service in the armed forces. We understand that these collection agencies are soliciting not only the physicians, but particularly the wives of physicians who have gone into the service. We would suggest that no physician or physician's wife sign any contract with these agencies until a thorough investigation has been made as to the agency and its responsibility.

A down-state paper, in commenting on the "shortage" of physicians, states that many of the patients calling at the offices of physicians go there for sympathy. In many ways this is true. Most of these folk are not physically ill; they are sorely disturbed on account of having members of their family in the armed services and want to talk about it, so it is but natural that they should go see their doctor. When in trouble, people went to their lawyer, to their minister and on occasion to their neighbor; now, in these times of great stress, the physician becomes the "father confessor," and it is to him they turn.

The medical staffs of several hospitals have a perplexing problem before them just now. There is, of course, an acute shortage of interns, a shortage that will continue until after the war is ended. Some hospitals have lowered their standards to the extent that they will take interns from other than Class "A" schools; some have even taken over refugee physicians. But some have an even more disturbing problem before them, that of the graduate "Jap" physician — what to do about that! A Japanese graduate, even though he may be American-born, is not likely to prove an asset to the modern hospital in these times. Too many citizens recall the horde of Japanese who for years had worked in this country in various capacities, only to return to their native heath, but of late to again come to this country and its insular possessions on missions of a most unfriendly sort.

Again, most present-day hospitals have among their patients employes from war-time industries, and it is our opinion that these patients will not take very kindly to the ministrations of a Japanese physician.

The Anderson Herald, in commenting on the large number of physicians entering the army services, gives its readers some very wholesome advice about *how* to get the best medical services from the physicians remaining at home. In concluding an editorial on the subject the editor writes:

"It is going to mean that severe problems fall on the shoulders of the doctors who remain. They will be overburdened with cases. It will be necessary to treat ninety per cent of the cases in their offices, rather than devoting their time to home calls. Only in extreme cases will they be able to leave. But all must bear this sacrifice as a war necessity."

We note in the Indianapolis papers that the local authorities have begun a campaign against prostitution in that community, among the plans devised that of an attempt to rid taverns of the so-called "pickups," dames of easy virtue who like to hang about the bars seeking patronage. We are of the opinion that tavern owners who permit these undesirables about their places are building up future trouble, besides aiding and abetting open prostitution. We are inclined to agree with a local health official who is quoted as saying that he believes in barring unaccompanied women from taverns. The custom of such women hanging about taverns, usually occupying stools at the bar and apparently willing to strike up conversations with male customers, affords the prohibitionists a potent argument against the saloons, taverns or what have you. It is understood that the State Liquor Commission is willing to aid in such a campaign, even to the extent of revoking the licenses of offending tavern owners.

Some time ago we took occasion to comment on the manner in which the Circuit Judge of Bartholomew County handled traffic cases, particularly those in which the admixture of gasoline and alcohol had played a leading role. As a result of his inflexible rule in the administering of justice in such cases, traffic accidents in that county took on a decided slump. Now again does the judge come forward with another ruling, one that will strike the fancy of all citizens interested in health measures. According to press reports he has rendered a decision in a habeas corpus action filed by a woman who had been jailed pending physical examination. He is quoted as saying: "It is the opinion of this court that the health authorities are within their rights in having a person with an infectious disease placed in a designated part of the county jail, not as a criminal, but for the purpose of isolation and quarantine." Bartholomew County, it should be remembered, is a part of the new Camp Atterbury site, and the local and state health officials in that area have been hyperactive in measures looking toward the control of venereal diseases in that section.

While the "stepping up" of medical education, graduating classes after three calendar years, will materially assist in the shortage of physicians that ever looms before us, there still will be need for conservation of medical resources. The time of too many physicians is being wasted in inconsequential things; the American people must learn not to expect too much from their physicians now that the load has been so greatly increased.

Coordinated team work is recommended by Dr. James P. Simonds, of Chicago, in a statement concerning the management of cancer. We quote from *The Illinois Medical Journal*, Vol. 81, No. 5, May, 1942, as follows:

"The underlying principle of the modern management of cancer is coordinated team work. It is improbable that any one man can perform all the duties and carry out all the techniques required. Any organization that sets itself up to manage cancer must contain at least a surgeon, a roentgenologist and a pathologist. This is the minimum requirement in personnel. There should also be added to the group an internist to advise concerning the diagnosis of cancer in deeper organs, and specialists who devote attention to each particular part of the body for advice in connection with tumors in special locations. It would be well also to have on such a team a chemist and physiologist. These could offer many helpful suggestions concerning special features of the disease. Each member of the team should have equal standing. Each should be considered as a consultant who is able to add something to the full understanding of cancer and to its management in any particular patient."

For many years we have noted the ability of certain newspaper men to go through a public address of unusual interest to our citizens, culling therefrom a statement here and another there and working them into a more or less connected article. This is unusually true in many papers which are opposed to an administration or to some proposed public project. A smart example of this was had in the reporting of the address of Paul McNutt, before the A. M. A. House of Delegates. Certain newspapers carried a story to the effect that McNutt "laid down the law" to our profession, wielded the big stick and all that sort of thing. Many physicians were wroth about the matter, and we are advised that numerous letters from all over the country were received in Washington in protest. We did not hear the address, hence were disposed to withhold comment until such a time as we might read it as published in *The Journal of the American Medical Association*. A very careful reading of the interesting comments made by McNutt failed to reveal a single instance in which he "assailed" the medical profession; rather was it a carefully prepared presentation of *facts* long since known to many of the profession, regarding the status of enlistment in the Medical Corps of the Army. We are further advised that Mr. McNutt was asked to discuss the very features of the problem which he so ably discussed — this request coming from the physicians who are heading the Procurement and Assignment Service.

Editorial comment in *The Journal of the American Medical Association* would seem to indicate that one of these days there may be a clamping down on some of the more blatant radio advertising of patent medicines, cosmetics and things of that sort. It seems that after long years there has been enacted an amendment to the Federal Trade Commission Act, known as the Wheeler-Lea Amendment. This provides that advertising of these nostrums must not be misleading. Heretofore, the Federal laws seemed to cover only the statements made on the bottle, providing that the labels thereof should not carry false and misleading statements. However, the radio broadcasts were a different matter; they went the limit — and more. One "specific," long advertised as a universal panacea for the ills — real and imagined — of the women of the country, of late years has had a very modest label. It states that "the herein preparation is recommended for the conditions for which it is intended." But the radio claims are endless, it seems. Some evening when you are in the mood, just keep tuned in when the announcer begins his croon about the various patents. Note the ultra-choice language in which his "message" is couched; you will be both interested and amazed to note how meticulously careful he is to avoid a direct statement, such as was very commonly made not so long ago. The writers of these "plugs" are a canny lot and they do their work well.

With the armed forces of the nation scattered all over the face of the earth, one can but wonder as to the health conditions among the enlisted men. No general reports are available on this subject, since the health problems of A.E.F. forces are not released except in extreme emergencies. However, with the number of precautions taken before the men leave this country, what with the innumerable "shots" they receive, one feels rather secure in the belief that our boys are well cared for in matters of health. Then, too, they have a greater complement of medical men than in former years, men trained as are no other professional group in the world. We see the results of this in the health reports from our training camps, where the American soldier has a health record equalled in no other part of the world. One of the greatest problems is, of course, that of the venereal diseases, but this, too, is being licked. With the health forces of the local communities and states, plus the activities of the United States Public Health Service—not forgetting the "arm of the law," as expressed in the co-operation of the local police departments—with all these forces in definite, concerted action, venereal disease control is becoming a reality in many sections of the country. In some rather isolated instances it has been necessary to *convince* the local authorities that Uncle Sam meant business when he ordered the closing of the vice-districts, but, on the whole, co-operation has been the order of the day.

Press comments on the decision of the United States Court of Appeals in the now famous case against the American Medical Association indicate that newspaper editors continue to feel that the profession of medicine is being "made the goat." The following excerpt from the *Indianapolis Star*, June 21, is very well put:

"Many have questioned this governmental prosecution from the start because of the doubtful premise on which it was based. The practice of medicine heretofore has been regarded as one of the outstanding professions. For purposes best known to itself, the government chose to regard such practice as a trade. By such arbitrary designation, it then proceeded to invoke the Sherman anti-trust law which never before had been used as a weapon in such fields of endeavor. The public's doubt over the clean hands of the Justice Department was not allayed by the fact that the case was initiated when the administration was attempting to regiment the medical profession into acceptance of socialized medicine and a vast spending spree that would have covered the country with Federal hospitals. These facts carried far more weight with the layman than legal phases of 'restraining trade.' "

In the *Princeton Democrat* for June twenty-ninth appeared an editorial which is well worth repeating:

WAR MEDICINE

American medicine is taking the lead in developing techniques for lessening the suffering and the mortality that war produces.

All over the world, American doctors, both within and without the military forces, are studying wounds and disease. New drugs and medicines are being tested. New methods of healing are being tried. And already, some signal achievements have taken place. American doctors on Bataan, for instance, finding themselves lacking certain vital supplies, experimented with a new treatment to prevent fatal infections in terribly wounded men—and they succeeded.

Whatever can be done to alleviate in any degree the horrors of war is a boon to mankind, and to a suffering and bleeding world. And it is only to be expected that American doctors are at the forefront in war medicine. The American doctor is an individual, not a regimented creature of the state. He has had the finest possible schooling and training. He is aggressively progressive. And today, all his skill, all his knowledge, and all his abilities, are urgently needed.

Many great medical discoveries will, in all probability, come out of this war. These discoveries will be the means of saving hundreds of thousands of precious lives, and alleviating the agony of the wounded. American medicine has gone to war—not to kill, but to save; not to destroy, but to aid and succor humanity.

In these days of a "shortage of doctors" it might be well to again stress the importance of a complete health examination, looking toward the elimination of some incipient disease. Several years ago we had such a campaign over the country, generally, with the result that many of our citizens became health-minded for the first time. These examinations could be made more or less at the convenience of the physician and later on probably would save much time for both physician and patient.

The following Resolution has been submitted by Dr. Clifford G. Grulee, secretary of the American Academy of Pediatrics, and calls our attention to some of the needs in our present war effort:

RESOLUTION PASSED BY THE AMERICAN ACADEMY OF PEDIATRICS

"WHEREAS, the War has led to the displacement of large groups of population and of unusual concentration in and around industrial areas and military camps, and in communities totally unprepared to meet the medical situation resulting; and

"WHEREAS, inadequate provision has been made to safeguard the health of and give adequate medical care to the thousands of children in these areas; and

"WHEREAS, it is apparent from reports by our members from every state in which these developments have taken place that the situation is not only dangerous to the present health, but to the future welfare of these children; and

"WHEREAS, adequate medical care is essential to the morale of industrial workers and to the men in service who have left their families; and

"WHEREAS, it is apparent that adequate medical care for the children in these areas cannot be supplied through the efforts of the local medical profession alone

"BE IT RESOLVED by the American Academy of Pediatrics:

"1. That immediate attention be given to this situation by the proper governmental agencies concerned with the health and morale of our industrial workers and civilian population.

"It recognizes:

"a. that inasmuch as these areas are largely due to munition industries, it is the concern of the military departments.

"b. as a matter of public health, it is the concern of the Public Health Service.

"c. as relating to the health of children, it is the concern of the Childrens' Bureau.

"The Academy is not concerned through which agency, or combination of agencies, this service is furnished or administered, as this is a matter of executive arrangement and detail, but that the problem demands immediate attention.

"2. That careful consideration be given to the proper placement to meet these needs of physicians adequately trained in child health and further that provision be made for the recognition of these services as being a part of our war effort."

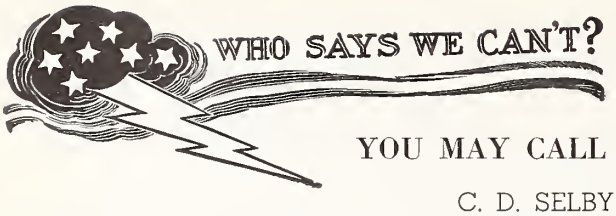
President's Page

ORATORY

This page is about "something I aint got nothing much of," but in the past six months I have certainly earned my salary listening to a great deal of vocal effluvia.

From January to July I have attended thirty-two medical meetings. I think I should have some kind of a CROIX DE GUERRE for having listened to Tom Hendricks six times. Major Lee three times, Colonel Bird three times, Colonel Henderson three times, Colonel Keller three times, Colonel Seeley four times and General Hershey three times, but I didn't get a thing from any one of them worth putting in the ASBESTOS ARCHIVES. At one meeting I was the only person present, although I had been invited two months previous to be the guest speaker. Avoiding the temptation of a good noon meal at home so as to have room for chicken and trimmings at Noblesville, I arrived at the hospital at 6:30, but there were neither automobiles, bicycles, nor horses and buggies to show the presence of the crowd of doctors whom I was supposed to enlighten and entertain. I finally found a "woman in white" who told me that the president had cancelled the dinner because the secretary had gone on a fishing trip and had left no word about any program having been arranged. I attended six district meetings and at one of these meetings I wasn't recognized even as part of the scenery, hut they did permit me to pay for my own dinner. To make up for this the annual Fountain-Warren County *fish fry* at Covington lacked only the presence of Dr. and Mrs. Owen to end a perfect day. For once I had my fill of Wabash caviar, catfish, corn bread and sweet onions. I was so full I could only sit on the table and tell them a lot of fish stories when my part of the program arrived. I hobnobbed with the elite of the dental fraternity at their state meeting and sat next to Dr. Ewbank, who added several new stories to my files for future use. But at the state pharmacy meeting it was obviously not my kind of a party, for they handed out two packages of effervescing headache tablets with every registration badge. An even more suggestive souvenir was given at the Kendallville meeting, where we were all given an ounce of argyrol and an applicator. I hutted in on the Terryhut and Tipton meetings without any invitation, since I had to contact Colonel Keller to arrange for him to be our guest speaker at Anderson on May twentieth. Anderson had the best attendance of any district meeting that I attended. Lawrenceburg had the most beautiful environment for their meeting at the Dearborn Country Club. The Tipton meeting at the Elk's Club had the best Dutch lunch and the most satisfying in abundance, for only ten doctors showed up at the buffet noon party up to 1:00 p.m. I passed up the Evansville and Washington meetings since I hardly felt justified in giving five hundred miles of gas and rubber, or three days' time going by bus or train, for what I could add to the occasions. The Eighth and Eleventh Districts had conflicting dates, and it was a disappointment for me to miss one of Dr. Brubaker's parties. I get around to asking a lot of questions at these meetings even if I don't get a chance to talk much, such as "How many doctors owning diathermy machines had them registered with the Federal Communications Commission in Washington before June eighth to avoid possible fines and imprisonment?" So far I've found one machine registered. Another nice little question for the "quiz kids" is "How many doctors have their books in such a shape that in case of their death all their unpaid accounts will not be taxed as cash?" One of the needed changes that shouldn't wait for the war to be over before becoming effective is the custom of asking state officers to waste their time attending meetings if they are to be no more than just a part of the scenery. Underdone chicken, half-mashed potatoes, and carrots and peas go very well with the passé introduction, 'We will now hear from 'So and So' who will tell us in two minutes' time all that we care to hear from him." And so, ladies and gentlemen, winding up this evening's entertainment I am telling "you all" that you had better have chicken-livers and bacon, or a well-cooked wishbone and a baked Idaho, or a medium beef-tenderloin with fresh mushrooms, AND MY NAME ON THE PROGRAM as an inducement for me to appear at any other place this year on what Dean Timmons calls "THE LIMA BEAN CIRCUIT."

M. A. Austin



YOU MAY CALL IT THE INDIANA PLAN

C. D. SELBY, M.D.

Chairman, the Subcommittee on Industrial Health and Medicine of the Health and Medical Committee

WAR MANPOWER COMMISSION

DETROIT, MICHIGAN

Private practitioners are accustomed to the care of industrial injuries and the compensation procedures entailed by them. In small plants this is usually the extent of the medical service received by the employees. In large industries, which are able to employ full-time physicians, the workers receive not only treatment of occupational injuries and diseases but a rather complete disease prevention service, consisting of pre-placement physical examinations, periodic health examinations, consultations in reference to their health, and instruction in nutrition and the prevention of disease.

The Council on Industrial Health of the American Medical Association is of the opinion that the private practitioners are able to make physical examinations of the workers in small industries, and to that end it has recommended a part-time service which does not differ from that in the larger industries except in quantity; the quality can be the same in both large and small industries.

Efforts have been made in Indiana, as well as elsewhere, to interest the private practitioners in the possibilities open to them through this type of service for small plants, with some success but not enough to regard it as a substantial wartime contribution.

The Subcommittee on Industrial Health and Medicine of the Health and Medical Committee, which is a Federal coordinating agency and functions in regard to the health of workers in the war industries, has realized the importance of developing a health maintenance program in the small plants, and among its recommendations is one to the effect that the Council on Industrial Health of the American Medical Association is deemed capable of promoting adequate small plant health service on a part-time basis. In short, the subcommittee is depending upon the private practitioners to make this important contribution as a wartime effort in addition to their usual practice of taking care of industrial injuries as they are referred to them in their offices. The opinions, therefore, of the Council on Industrial Health and the subcommittee are in harmony.

At the meeting of the Fifth National Conference of Industrial Hygienists held in Washington, April 10, 1942, concern was expressed by that body regarding the problem of providing adequate health services in the small industrial plants. In other words, the conference was not fully satisfied with the progress made by physicians in general practice with respect to the services they could render in the small industries.

In his address to the House of Delegates of the American Medical Association at Atlantic City, June 8, 1942, Indiana's distinguished citizen, Mr. Paul V. McNutt, spoke stirringly of medicine's responsibility in furnishing officers for the military forces, and then he said: "The Army and Navy are not the whole story. There is yet far too little consciousness of any problem beyond that of obtaining physicians for the Army and Navy. The acute need for civilian service is not yet appreciated. There will be no 'business as usual' for physicians at home—any more than there can be for the physicians in the military service.

"The American Medical Association's Council on Industrial Health and the Subcommittee on Industrial Health and Medicine have aided in the establishment of many industrial medical services. They have helped to create educational programs to train physicians for such services.

"But for the most part that development has been directed to large plants. There is no well recognized plan as yet for the small plant. The more general recommendation of 'cooperation with local practitioners' is not enough. It has not produced results.

"And as industrial physicians have so often reminded the people, industrial health does not begin and end at the factory gates. Home and community sickness costs America more man-days in time lost than do occupational accidents and occupational illnesses. The home and the community, therefore, cannot go unserved in wartime.

"Dr. Lahey and Dr. Abell, and those who appreciate the great responsibility of American medicine, know and understand these needs. It is time, I think, for a concerted drive to bring home to every doctor the importance of the local civilian problems of medical care in boom areas—a drive that will bring the necessary action.

"Let me underscore the need for doctors in industrial areas and in defense boom towns. The community that is growing, as some communities have, from a rambling rural village of a thousand people

to a town of 30,000 and 40,000 or 50,000, must be taken care of. Doctors will have to be assigned to those towns on a voluntary basis or on some other basis." (*Journal of the American Medical Association*, June 20, 1942, Volume 119, No. 8, Page 606.)

It is to be noted from the foregoing that there is much for the profession to do in relation to the health of the industrial workers, not only by way of preventive medicine in the small plants but also the medical care of the industrial workers and their families in industrial communities, especially in suddenly expanded industrial communities.

As chairman of the Subcommittee on Industrial Health and Medicine, it is my hope that the organized profession will realize, after supplying military needs, that this is the profession's No. 1 responsibility in the war. It can be met by doctors who are ineligible for military service and can be made an adjunct to their private practices. Acting as individuals, doctors can accomplish something if they interest and instruct themselves in modern industrial medical procedures, but I do not hope to obtain by this means the substantial contribution which is necessary in the war effort. On the contrary, I am convinced that maximum results can be obtained only through all-out activity on the part of the organized units of the profession, such as the Indiana State Medical Association. I have had some conversations with Mr. Thomas A. Hendricks, executive secretary of this Association, and I am pleased to say that he has a remarkable conception of the problem. Mindful of his understanding and recognizing the importance of the state of Indiana and its medical association, I am suggesting that this organization go on an all-out war basis for the duration, with its principal, if not sole objective, the adequate distribution of medical service, in order that the needs of industry as well as the military forces may be fully and creditably satisfied.

Such a program is already in the hands of Mr. Hendricks. If supported wholeheartedly by all of the Indiana profession it might also serve as a solution for the perplexing peacetime problem of distribution of medical care and, after the war, as a means for the re-establishment of physicians who have served in the military forces.

ABSTRACT

AMERICAN SOLDIER IS BEST FED FIGHTING MAN IN WORLD TODAY

In an outline of the Army's nutritional problems, James A. Tobey, Dr. P.H., Lieutenant Colonel, Sanitary Corps Reserve, United States Army, New York, in the current issue of *War Medicine*, published by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council, declares that "For an army of 1,500,000 men, nearly 9,000,000 pounds of food must be procured, transported, stored, supplied and prepared every day, the biggest catering job in the history of this country. With the expansion of the Army, this task will gradually become even greater." He explains that in camps and posts the American soldier eats about 5 pounds of food a day, or somewhat over 1,800 pounds a year, whereas in the civilian population the average consumption of food is about 1,400 pounds a year.

Pointing out that good nutrition is a military necessity, Colonel Tobey says that "the American soldier can be, and generally is, the best fed fighting man in the world today. There is available to him an abundance of wholesome natural foods, and his menus are carefully selected and arranged by dietary experts who are thoroughly familiar with the newer knowledge of nutrition. . . .

"The fare of the American soldier is, in general, much superior to that of the Nazi and the Japanese soldier. Because of the shortage in natural foods, the Nazis depend in considerable measure on *Ersatz*, or substitute, foods, such as concentrates of soy bean flour mixed with dried vegetables and fruits. These concoctions are nourishing but not particularly appetizing. The Japanese subsist largely on polished rice, with soy beans, root vegetables and a little fish. Staple foods common in America, such as bread, meat, milk and fruits, are almost totally lacking in the Japanese diet, although the military forces receive better rations than does the general populace. . . ."

Colonel Tobey explains that while the procurement of food and its supply to troops is the function of the Quartermaster Corps, supervision of the nutrition of the soldier is the legal responsibility of the Medical Department of the Army.

Explaining that the basis of the field ration, which last year replaced the old garrison ration system for troops in this country, is a monthly menu prescribed for stations within a corps area, he said that a most significant statement in the order creating the new ration is that " 'Care will be exercised to see that the menu is nutritionally balanced, ample variety provided, and full utilization made of seasonal fresh fruits and vegetables.' Apparently this is the first time in the history of the Army that stress has been placed on the nutritional adequacy of the diet, a natural development, however, in view of the modern progress of nutritional science."

Regarding nutritional standards in the Army, Colonel Tobey says that each soldier needs at least thirty-six essential nutrients in his diet.

"The soldier," he says, "can obtain all of these necessary nutrients if at least 60 per cent of his calories, or units of food energy, are furnished by such protective and body-building foods as pasteurized milk and other dairy products, eggs, fruits, green leafy vegetables, yellow vegetables, meats and enriched bread and whole grain cereal products. The remainder of his calories will be secured from energy-bearing foods, such as breadstuffs, potatoes, solid vegetables, fats and sugar. He will derive full benefit from these foods only if they are properly prepared, without loss or reduction of essential vitamins and minerals."

On Feb. 10, 1942, it was announced that all bread used by the Army would be prepared from enriched flour.

Explaining that during combat and in certain situations, such as aviation activities, parachute work, tank maneuvers and mobile operations at long distances from bases, special rations are often necessary, the Colonel said that concentrated foods packed in special containers have been devised for these purposes.

MEDICAL CARE FOR MILLIONS OF PEOPLE IN INDUSTRY

WILLIAM S. KELLER, M.D.
REGIONAL MEDICAL OFFICER, OFFICE OF CIVILIAN DEFENSE
CLEVELAND, OHIO

SAFEGUARD AMERICA'S HEALTH

With our National Labor force now rapidly approaching fifty-five million men and women—with production now reaching the highest peak in the history of the nation, Americans will have to safeguard their health in the days which lie ahead so as to keep production at the surprising level which it has now reached.

We must see to it that no avoidable damage is done to impair the progress of production. Only proper industrial health measures can provide the answer. It is not enough to say that only 4 per cent of the working time of the average employee is lost through illness or accident.

On the basis of a regular five-day, forty-hour week, that fraction means a total loss of two hundred and ten million working hours a week by those engaged in industry—80 per cent of this time-loss is the result of ordinary illness.

This problem can be successfully attacked locally by proper encouragement to plant health programs and emphasizing the importance of community health. Illness which so directly affects production has its origin both in and out of the factory.

The strain of long hours, day in and day out, is also beginning to make a serious impression in increased absenteeism—due to hypertension and fatigue.

The danger which confronts America is real! Building and protecting our individual health is necessary to the maintenance of our war production.

Sixty-five thousand medical men will be needed for the armed forces. The physicians and surgeons who remain at home will have to perform double duty, and they recognize this responsibility.

This challenge can and will be met if the people, employers, workers and doctors will cooperate. Strengthen the resourcefulness of the individual in dealing with minor illnesses or emergencies in the home and in the shop. Lastly, develop in the individual a health consciousness for his own protection.

The task before us is to keep the workers conditioned for the long pull ahead.

THE PHYSICIAN'S ROLE IN THE EMERGENCY PROGRAM

The war emergency places many demands on industry. Wages and hours, while of great importance, are only a part of a larger program that industry must face as a wartime measure. The medical profession is in no small way involved in this enlarged emergency program of millions of people added to industry.

Our civilian population in every community in this country, with its industrial worker counterpart, is faced with a reduced medical personnel.

We are informed, from authoritative sources, that the medical men who are full-time industrial surgeons, and in some instances part-time, will not be willfully and knowingly displaced. Yet we are faced at the same time with the fact that there are still a negligible number of industries that are large enough, forward looking enough or affluent enough to have industrial surgeons on a full-time basis, and a reasonably small number on a part-time basis.

In other words, the double duty must be assumed, for the medical men left for the civilian population are the same men who must serve our war industries. That war industries must be served, and served well, there can be no doubt. Now that the tempo of industry is speeded up, that younger men are leaving to be replaced by older men, is but to face added hazards. That women must eventually replace men and enter the labor market in increasing numbers, is but to augment the responsibility and attention of industrial physicians and surgeons, because we know that women do not hold up under and stand the tests of industrial diseases as do men.

The physicians and surgeons will face their responsibility. While they give their time to the problems of industry as their first allegiance, it is very important that the civilan population shall understand that they must do their bit to conserve the time of the doctor, so that he may plan his day and ration his time to the all-important problem of winning the war.

CIVILIAN HEALTH AND THE SHORTAGE OF DOCTORS

CLARENCE A. JACKSON
Indiana Civilian Defense Director
INDIANAPOLIS

The prospect that one physician out of every three now practicing in Indiana may be called into the armed services by the end of the present year presents a problem with many grave implications. Indiana's vital role as a supplier of goods for the military would be dangerously jeopardized in the event of an epidemic, which could easily grow to serious proportions without an adequate supply of medical service.

The shortage of medical men in many communities is presenting a serious civic health and production problem that those who stay at home must face.

Recent developments indicate a determined speed-up in the process of taking doctors into the services. At present the effort is concentrated on the younger men in which group it is estimated that there are seventy-two thousand practitioners in the United States under the age of forty-four years. By the time the nation has reached its maximum military effort now contemplated, more than two-thirds of this group is expected to be in service.

While the Army is crying for more doctors, there is a great deal of criticism from reliable sources that the Surgeon General's Office is not utilizing the doctors already in the service to the best advantage. Charges are made that too many doctors are required to do administrative and "paper" work that could be done by others. The release of doctors from administrative positions and their assignment to work in their profession doesn't hardly seem to be a debatable matter—it is just common sense procedure.

Since a program of "rationing" the doctors seems inevitable, three points loom as basic factors which must be given thorough consideration:

(1) Supply the military services with an adequate medical staff in order that servicemen in training and in combat will receive the benefit of the best skills this nation has to offer.

(2) Spread the remaining supply of doctors among the various communities in order that the whole nation may be served on the basis of the known fact that the health of one area is certain to affect the others.

(3) Examine the operation of the system with the same critical tests applied to other "skills," and prevent the misuse of medical talent in administrative capacities.

Thus far the program of obtaining doctors for the armed services has been proceeding along voluntary lines through the Procurement and Assignment Service of the War Manpower Commission, headed by Paul V. McNutt. At present this group has no power to order a doctor to enter the Army or to change the location of his practice—except in that it could recommend that doctors who are physically and professionally qualified be inducted through their Selective Service Board. All doctors are commissioned, and in the event they are married their base pay will be in excess of $3,000 per year.

From public statements which have been made on the shortage, it is expected that the greatest difficulties will arise in supplying doctors for the rural areas and in the centers of defense production where the accident rate is high. Oddly enough, both of these conditions are apt to apply to Indiana with particular force. With practically every city of any size grinding out war materials, the need for medical service was never as great, and at the same time residents of the rural areas of the state will be caught by the twin shortages of no transportation to get to the doctor and no doctor to get to them.

One of the difficulties confronted by the military as well as the WMC is the lack of any definite information as to the number of doctors actually needed in servicing the troops in this new style of war. At the present the Army plans for 6.5 doctors for each 1,000 soldiers, depending upon the branch of the service, since the highly mechanized units are certain to have a higher accident frequency. The Navy maintains the same ratio for every 1,000 men.

Naturally these figures are much higher than the civilian ratio which in the United States will run about .75 doctors for each 1,000 population. At the same time it is considerably higher than the British figure which is reported to be 4.3 doctors for each 1,000 soldiers and sailors.

There seems to be a general agreement in regard to the importance of civilian needs in that all people must have access to a doctor in the event of an emergency. The withdrawal of one doctor from a "one-doctor community" sets up a situation in which one or all of three basic conditions must prevail:

(1) Another doctor must be assigned from some center in which there is a "surplus" or rather where a wider division of duties can be made.

(2) Many retired doctors, women doctors and others who are unable to meet the Army and Navy physical requirements will be called upon to enter the new field or resume practice at home.

(3) Every community must organize its medical facilities on a wartime basis to extract every bit of efficiency in caring for the civilian population in order that the available medical supply can be "spread thinner."

The seriousness of this situation is difficult to exaggerate. According to a recent speech delivered by Paul V. McNutt before the American Medical Association in Atlantic City, "Some states (Indiana included) are meeting their reasonable and expected quotas. Evidence exists that there are still some areas in America which have not yet fully discovered the war."

During the first six months of World War I, 12,000 doctors entered the service. During the first six months of this war, 3,000 responded, although it is possible that a greater proportion held reserve commissions than prior to the first war. As the figures now stand 22,000 doctors have been taken from private practice during the past 12 months, and 10,000 more are slated to go during the remainder of 1942. The proposed army of 9,000,000 men which would amount to about 12 per cent of the nation's population would call for the total of 60,000 doctors, or about one-third of those now practicing.

LAW PERTAINING TO OCCUPATIONAL DISEASES

ALBERT STUMP, Attorney
Indiana State Medical Association

Under the Workmen's Occupational Diseases Act, approved March 6, 1937, compensation for occupational diseases is provided for on terms practically identical with compensation for injuries provided for under the Workmen's Compensation Act. Prior to the Occupational Diseases Act, in the absence of negligence of the employer, there was no cause of action by an employee against his employer for injuries resulting from occupational diseases as they are defined in the Act. The Act defines occupational diseases as follows:

"(a) As used in this act, the term 'occuptional disease' means a disease arising out of and in the course of the employment. Ordinary diseases of life to which the general public is exposed outside of the employment shall not be compensable, except where such diseases follow as an incident of an occupational disease as defined in this section.

"(b) A disease shall be deemed to arise out of the employment, only if there is apparent to the rational mind, upon consideration of all of the circumstances, a direct causal connection between the conditions under which the work is performed and the occupational disease, and which can be seen to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment and which can be fairly traced to the employment as the proximate cause, and which does not come from a hazard to which workmen would have been equally exposed outside of the employment. The disease must be incidental to the character of the business and not independent of the relation of employer and employee. The disease need not have been foreseen or expected but after its contraction it must appear to have had its origin in a risk connected with the employment and to have flowed from that source as a rational consequence." (Burns' 1933, Section 40-2206.)

There are no limitations in the Act itself as to what constitutes an occupational disease. Any disease which "arises out of the employment," as that expression is defined in the Act, is an occupational disease.

It is optional with both the employer and the employee to accept or reject the benefits of the Act. But if the employer elects not to come within the Act, the Act in that event gives to the employee certain advantages in an action at common law against the employer for negligence, which would not otherwise exist.

Prior to the Occupational Diseases Act an employee had a right of action against his employer for injury sustained as the proximate result of the negligence of the employer; and the employer had a right to defend in such an action on the grounds: first, that the employee assumed the risk of the employment; second, that the injury was caused by the negligence of a fellow servant; and, third, that the employee was guilty of contributory negligence.

If the employer elects not to come under the Occupational Diseases Act, then the employee, if he contracts a disease in the course of his employment as the result of the negligence of the employer, still has his cause of action at common law for negligence against the employer, and the employer does not have available to him the defenses just mentioned. The amount of damages in a common law action of that kind is fixed by a jury, but cannot exceed $10,000 in event of death. There is no limit if the employee lives.

If the employer elects to come under the Act but the employee rejects it, then if he brings an action to recover for a disease resulting from the negligence of the employer, the employer may avail

himself of the defenses of contributory negligence, negligence of a fellow servant, and assumption of risk.

As a result of these provisions regarding the common law action it is unusual for employers or employees to elect not to operate under the Act. When both are operating under the Act, then the question of negligence is not involved. The only question involved in determining liability of the employer is whether the employee contracted an occupational disease in the course of his employment.

In determining whether a disease from which one may be suffering is a compensable occupational disease, there is one conclusive presumption provided for in the Act: that an employee "shall be conclusively deemed to have been exposed to the hazards of an occupational disease when for any length of time, however short, he is employed in an occupation or process in which the hazard of the disease exists." The fact as to whether a case falls within the classification of occupational diseases is a matter to be established by evidence. It is a question of fact and not of law. But obviously the evidence best adapted to establish either the existence or non-existence of the fact is expert evidence in the form of medical testimony. And the Act gives to the employer the right to require an autopsy at his expense, to be performed by a competent pathologist to be named by the Industrial Board. The autopsy cannot be held without first giving notice to the parties in interest so that they may attend.

The Act makes the same provision for medical care as is contained in the Workmen's Compensation Law. That is, the employer is required to furnish medical and hospital care during the first thirty days after disability, and he may furnish such care in whole or in part for the remainder of disability or impairment. If treatment is necessary for more than thirty days the Industrial Board may require the employer to furnish it for an additional period not to exceed thirty days. In case of an emergency or of the failure of the employer to provide medical and hospital care and attention, the injured employee may obtain it himself and the reasonable cost thereof must be paid by the employer.

In order that employees may receive the benefits to which they are entitled under the law, care in diagnosis with relation to the circumstances of employment out of which occupational diseases may arise should be exercised by physicians. They have the duty of informing their patients of the existence of such diseases so that notice and claim for compensation may be made within the time allowed by the statute. No compensation is payable unless disability occurs within one year after the last exposure to the hazards of the disease, except as to diseases caused by silica dust or asbestos dust, in which cases the limit is three years after exposure.

Notice of disablement must be given to the employer "as soon as practicable after the date of disablement," and claim for compensation must be filed with the Industrial Board within one year from the date of disablement; or in the event of death, within one year after the date of death. If the employee (or in event of death, his dependents) loses his right of recovery because of negligence of the attending physician in making and reporting to the patient his diagnosis, it is possible that there would be a cause of action against the physician for damages in the amount of the compensation recoverable under the Act.

ABSTRACTS

DEATH FROM USE OF HOME TREATMENT ELECTRICAL DEVICE

"Any sort of self treatment by electric devices—home-made or procured from unscrupulous manufacturers or their sales agents—may cause death by electrocution when applied by inexperienced and unskilled lay persons," Richard Kovacs, M.D., New York, warns in *The Journal of the American Medical Association* for June 6.

Dr. Kovacs' admonishment is contained in a report on a Long Island, N. Y., clergyman who was found dead in his room, a victim of an attempt to treat pain in the back of his neck with a violet ray machine. Undoubtedly he had "grounded" the machine in the mistaken belief that by so doing he would increase the strength of the current and thus the efficiency of treatment.

STUDY OF BURNS IMPORTANT IN WARTIME

"The study of burns is of especial importance in time of war," Henry N. Harkins, M.D., Detroit, says in *The Journal of the American Medical Association* for May 30, pointing out that "It is reported that 60 per cent of the casualties at Pearl Harbor were burns. The treatment of war burns requires an adequate knowledge of the management of peacetime injuries coupled with an understanding of several of the distinguishing features of wartime burns. The present conflict has produced several unusual injuries not previously seen in large numbers, e.g., the 'airman's burn,' the phosphorus burn and the burn contaminated by oil and sea water. . . ."

The so-called airman's burn, he says, is especially prevalent in this war. When an explosion occurs in an airplane, the aviator throws up his hands to protect his face, burning the backs of the hands as well as the face. Such burns are often deep and involve a considerable amount of convalescent care to prevent bad scarring.

The phosphorus burns are especially apt to occur from incendiary bombs and self-igniting phosphorus grenades. Because small particles tend to become embedded under the skin, these injuries are apt to be deep. It is advised that such burns should be immersed and the phosphorus particles picked out under water.

Dr. Harkins says that general treatment of burns should be carefully coordinated with local treatment. The former should be promptly carried out and should include measures directed against shock, toxemia and infection. Specific remedies include plasma, dextrose solution, blood by transfusion, possibly adrenal cortex extract, and sulfonamides.

WHAT WENT ON DURING WORLD WAR I

Items from THE JOURNAL of August, 1917

There were four original articles in this number; "Conservative Treatment of Penetrating Wounds of the Eyeball" was discussed by Editor Albert E. Bulson; S. L. Egart, of Indianapolis, gave a case report in connection with a case of leprosy recently found in the state; August F. Knoefel, of Terre Haute, wrote on "First Aid Work of the United States Bureau of Mines," and C. Norman Howard, of Warsaw, wrote a "Review of Prescription Work."

* * *

Editorially we find a number of discussions, among them one on the problem of unnecessary operations and incompetent surgeons; a plea for more adequate compensation in industrial cases; the proper care in safeguarding the health of our troops, and a final consideration of the use of old fashioned "court plaster." Needless to say the editor took a decided stand against the then all too common use of this article.

* * *

In his editorial notes the editor took occasion to say, "If all of the Indiana physicians who are talking about going to war really get into Uncle Sam's service, there will not be enough doctors left in the Hoosier state to take care of an ordinary boil. However, the test of the proposition is in real enlistment, and the records from Indiana seem to show that we are a little shy on medical recruits."

* * *

Doctors entering the service were strongly urged to look into their life insurance policies and study the exemptions therein.

* * *

The editor commented on the question of "vacation or no vacation" for physicians in war time. He urged that every physician take a few days away from his routine, feeling that said physician would return much better fitted for the strenuous days ahead.

* * *

A discussion was given concerning the disadvantages of serving as the medical member of Local Conscription Boards, for no matter what decisions were made as to the availability of those called for examination, there was certain to be some criticism. The editor suggested that medical members of such boards serve away from home rather than in their own communities.

* * *

Regret was expressed that politics had edged into the appointments to the Medical Reserve Corps, as well as into certain other departments of the Army and the Navy. "It is no time to further the the interests of favorites or to distribute rewards for political service, or in the hope of gaining political service," said the editor.

The New York City Board of Health announced that it had discovered a spurious neosalvarsan being peddled about the city. It was said to be composed of salt and a little coloring matter. Specimens of the fake product were shown at the current meeting of the American Medical Association.

* * *

Medical and surgical supplies were hard to get, and even hospitals were being notified that their usual purchases would have to be materially reduced.

* * *

It seems that Colonel Theodore Roosevelt, former President of the United States, took his famed "big stick" with him when he went to the New York City Hippodrome, there to address some six thousand members of the American Medical Association at their annual meeting. The Colonel is quoted as having said that "every eligible doctor in the United States should be compelled to give his services to the country in the war with Germany." He also is quoted as having said, in speaking of "conscientious objectors," that he favored sending such a man to the front without a gun!

* * *

Again did the editor assail the medical man who constantly is seeking publicity through the local press. "Why do self-respecting doctors cheapen themselves by permitting and even soliciting newspaper exploitation of themselves?" he asks.

* * *

Dr. J. Rilus Eastman had been appointed to the General Medical Board, by Secretary Newton D. Baker, of the War Department.

* * *

The Dearborn-Ohio Medical Society had unanimously passed a resolution favoring war-time prohibition.

* * *

Ninety-two physicians from Pennsylvania had completed their training course at Fort Benjamin Harrison, had been commissioned as officers of the Medical Reserve Corps, and had been assigned to service in various Pennsylvania points.

* * *

A bill had been introduced in the Congress providing that medical and pre-medical students in reserve officers' training camps be placed in medical schools to finish their training, thereafter to be commissioned as officers of the Medical Reserve Corps.

* * *

Twenty-eight Indiana physicians, recently commissioned as medical officers, had received orders to report to various parts of the country for immediate service.

UNDER THE CAPITOL DOME

ARTIFICIAL LEG PROJECT ENDED

Closing of the Indiana WPA artificial leg project, which has been in operation for the past six years, has been announced by officials. The project, only one of its kind in the country, was closed July first because of lack of funds.

During the operation of this project artificial legs were distributed to more than eight hundred needy citizens throughout the state. It was under the sponsorship of the State Department of Public Welfare. Workers employed were all physically handicapped and the majority of them wore artificial legs themselves. They constructed artificial legs for five major types of amputation cases: below-the-knee, above-the-knee, knee-bearing, Chopart's and Syme's.

According to officials of the Welfare Department, the project served a double purpose: first, it enabled many of the recipients of artificial legs to become self-supporting; and second, it resulted in a mental re-adjustment on the part of many handicapped persons, sometimes with a near-psychotic condition.

In announcing the abandonment of the project, the Welfare Department said that there is a need for social agencies and for private concerns manufacturing artificial limbs to develop a plan by which needy handicapped persons may buy appliances at minimum costs, unless some statewide organization is willing to sponsor such a project.

PRISON INMATES VICTIMS OF ACCIDENTS

John L. Klinger, director of the Penal and Correctional Division of the Indiana State Department of Public Welfare, calls attention to a seldom-considered group of men who are occasionally victims of industrial accidents. These are the prisoners in the state prison, state reformatory, and state farm.

These men occasionally are injured while at work in the prison shops. The state, of course, provides full hospital and medical facilities for the injured prison workman, but no provision is made under Indiana laws to compensate an injured prisoner in event the injury is such that he is permanently impaired, or in case the impairment carries over into the period in which he is released from the institution.

This situation is more important now than it has been previously in light of the fact that the state prisons may be converted into war material production units.

Mr. Klinger pointed out that the prisons have facilities to produce a varied list of war materials, including metal, wood, and cloth articles. Steps are now being taken to secure war contracts for the various Indiana prisons, but thus far no contracts have been awarded to any of them. Contracts, however, are expected to be signed soon.

INDUSTRIAL ACCIDENT RECORDS

Records of the Indiana Industrial Board reveal that more than 15,000 workers in Hoosier industry were injured in factory, shop, and mine accidents during the first six months of this year. Attaches of the board estimated that the accident toll for the year will be between 32,000 and 33,000 workers, as compared to an approximate 25,000 last year. The increase, obviously, is the result of stepped-up employment due to Indiana's important role in the industrial phase of the war effort.

Exact total of injured for the half-year period was 15,124. This figure does not include persons incapacitated by occupational diseases but is strictly an accident toll. It includes all the reported accidents in all types of industry.

Peak month of the half-year period was January, in which 2,669 workers were victims of accidents; June was the second highest, with 2,596 industrial injuries. At least 2,000 workers were injured each month, with February recording the fewest, 2,370.

Seriousness of every industrial accident was emphasized by Dr. Louis W. Spolyar, chief of the Bureau of Industrial Hygiene of the Indiana State Board of Health, who pointed out that normally fifteen to seventeen men are needed behind the lines to keep one man completely supplied on the front line in the present war effort, and that one skilled toolmaker is rated the equivalent of a regiment of infantry.

TANKS A MILLION

Tanks a million is our Uncle Sammy's cry,
  And tanks a million shall be our reply.
There's more to go in them than just iron and steel:
  Loyalty, honor, American zeal.

We'll scrap fears and hatreds, pack sands of desire,
  Political differences melt in the fire,
The Wronged and Oppressed carry such an appeal
  To our standards and rights, our hearts they anneal.

Our Open Hearth fires warm the world with their flame.
  Molding armor and men with stout heart and frame,
Patterned by heroes of pioneer devotion
  From mountain and valley and ocean to ocean.

When they arrive at the line of inspection,
  They are headed unswerving in one firm direction
O'er barbed wires of treachery, barriers of dictators,
  Reducing mock idols to eloquent craters.

We'll heave to our task, and slack not a minute,
  Keep them rolling along, put all we've got in it.
We'll work night and day, buy bonds by the billion.
  To our own Uncle Sam! Here's tanks a million!

(Reprinted from the May, 1942, issue of "The Continental," published by the Continental Roll & Steel Foundry Company.)

FULL-TIME RECRUITING BOARD WITHDRAWN

The procurement of physicians for the Army in the state of Indiana has proceeded in a satisfactory manner. The Surgeon General has discontinued the Indiana Medical Officers' Recruiting Board as a full-time board in this state and will not make an intensive recruiting drive henceforth. The members of the present board are now serving on a second similar board in Columbus, Ohio.

Many incompleted applications are, however, still pending that have been counted into the Indiana results, and the good record of this state depends upon completion of these cases. Some physicians who were given temporary deferment for short periods of time are becoming available now. These applications must be completed.

The Surgeon General has arranged a plan whereby available physicians and dentists of Indiana may make their applications for commission. These doctors may get the necessary forms at the headquarters' office of the Indiana State Medical Association, 1021 Hume Mansur Building, Indianapolis, including a letter authorizing their physical examination. The examination will be done at the Station Hospital, Fort Benjamin Harrison, Indiana, and can be taken at 8:00 A.M. or 1:00 P.M. on any day except Sunday. It is necessary to get this physical examination within forty-eight hours after applying unless a Sunday intervenes.

The application forms will be filled out at 1021 Hume Mansur Building and in most cases the applicant is required to get but one form completed outside this office. That form is a simple statement from his local Selective Service Board as to his classification and whether or not he has been ordered up for induction.

Physicians making application under this arrangement will be notified by Major Norman R. Booher, M.C., from Columbus, Ohio, when and where they may have final action on their applications. So far as can be foreseen this will be in Indianapolis in approximately seven to ten days after the application is filed.

Instruction sheets will be handed each applicant when he gets his forms.

C. R. BIRD, M.D., *Chairman*,
Indiana Procurement and
Assignment Service for Physicians

Deaths

Otto F. Fleener, M.D., of Hammond, died June twenty-eighth, at the age of sixty-four. Doctor Fleener was a graduate of the Medical College of Indiana, Indianapolis, in 1898.

* * *

Charles A. Inks, M.D., of Nappanee, died June twenty-first, at the age of sixty-six. He graduated from the University of Illinois College of Medicine, Chicago, in 1902. Doctor Inks was a member of the Elkhart County Medical Society and of the Indiana State Medical Association, as well as a Fellow of the American Medical Association.

* * *

Adah McMahan, M.D., of Lafayette, died June twenty-fourth, aged seventy-three. She graduated from Northwestern University Woman's Medical School, Chicago, in 1897. She was especially interested in gynecology. Doctor McMahan was a member of the Tippecanoe County Medical Society and of the Indiana State Medical Association. She was also a Fellow of the American Medical Association.

* * *

George S. Row, M.D., of Indianapolis, died at his home on July eighth, at the age of seventy-five. He was a graduate of the Miami Medical College, Cincinnati, in 1890, and specialized in ophthalmology. Doctor Row was a member of the American Academy of Ophthalmology and Oto-Laryngology, and the Marion County Medical Society, and was an honorary member of the Indiana State Medical Association and a Fellow of the American Medical Association.

* * *

Joseph F. Steininger, M.D., of Gary, drowned while fishing in Miner Lake near Allegan, Michigan, on June thirtieth. He was twenty-nine years of age. He graduated from the University of Illinois College of Medicine, Chicago, in 1939. Doctor Steininger was a member of the Lake County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Benjamin S. White, M.D., of Greensburg, died at his home on July third, at the age of eighty-seven. He was a graduate of the College of Physicians and Surgeons, Keokuk, Iowa, in 1881. Doctor White was a member of the Decatur County Medical Society, and an honorary member of the Indiana State Medical Association, as well as a member of the American Medical Association.

* * *

Alvis A. Williamson, M.D., of Michigantown, died June twenty-eighth, at the age of sixty-eight. Doctor Williamson graduated from the Medical College of Indiana, Indianapolis, in 1898. He was especially interested in ophthalmology. He was president of the Clinton County Medical Society at the time of his death. He was a member of the Indiana State Medical Association and of the American Medical Association.

News Notes

Dr. R. H. Elliott, of Connersville, has been appointed Fayette County health officer to succeed Dr. John S. Leffel, deceased.

Dr. Otis N. Olvey, who recently completed his internship at the Robert W. Long Hospital, has established a practice at Noblesville.

Dr. George L. Regan, of Sellersburg, and Miss Betty Stephens, of New Albany, were married in New Albany on June eighteenth.

Dr. Robert B. Sanderson, specializing in diseases of the heart and lungs, has opened an office at 730 Sherland Building, South Bend.

Dr. Kenneth O. Neumann, and Miss Ruth Benjamin, both of Lafayette, were married May fifth, in Lafayette.

Dr. Robert Rang, formerly of the Pathology Department of the Methodist Hospital, Indianapolis, now has a fellowship in surgery at the Mayo Clinic.

Dr. F. L. Burris, of Michigan City, has been appointed city health officer to succeed Dr. Norman R. Carlson, who is with the U. S. Army Air Corps at Hill Field, Ogden, Utah.

A new pathological laboratory has been equipped at the Elkhart Hospital. This laboratory will be under the direction of Dr. A. S. Giordano, of South Bend.

Dr. James Y. McCullough, who has recently been located at Statesville, North Carolina, has returned to New Albany, his native city, where he will establish his practice in the offices formerly occupied by his father.

In compliance with the appeal of the President and that of Governor Henry F. Schricker of Indiana that all children should be protected against smallpox and diphtheria before May 1, 1942, the Lake County Health Department personnel conducted a free immunization campaign in the schools of the rural and town area of Lake County, Indiana. From March 2 to April 22, 1942, they administered 5,047 smallpox vaccinations and 2,424 immunizations against diphtheria.

Dr. Charles M. Gingerich, of Liberty Center, and Miss Marjorie Allen, of Ossian, were married April twenty-eighth.

Dr. F. A. Beardsley, of Frankfort, has been appointed county health officer of Clinton County, to succeed Dr. Bruce A. Work, who has enlisted in the Army Medical Corp.

Dr. F. A. Beardsley, of Frankfort, has been appointed county health officer of Clinton County, to succeed Dr. Bruce A. Work, who has enlisted in the Army Medical Corps.

Dr. Marion R. Scheetz, of Lewisville, and Miss Lorena Ryman, of Knightstown, were married at the home of the bride Sunday afternoon, June fourteenth.

Dr. R. J. Ives, of Francesville, has been appointed health officer of Pulaski County, to fill the unexpired term of Dr. Harold J. Halleck, of Winamac, who is now with the armed forces.

Dr. Russell P. Reynolds has been appointed secretary of the board of health of Garrett, succeeding Dr. R. A. Nason, who is now a lieutenant in the United States Medical Corps.

Dr. John S. Morrison, of Lafayette, has been appointed to succeed Dr. Lowell C. Smith as coroner of Tippecanoe County, Dr. Smith having resigned to join the U. S. Air Corps.

Dr. M. D. Wygant has been appointed president of the Mishawaka Board of Health to succeed Dr. H. J. Zimmer, who resigned to accept a commission in the Army Air Corps.

Dr. Hollace Royster, of Frankfort, has been named physician for the Park View Home and the county jail, to fill the unexpired term of Dr. Robert A. Hedgcock, who is now in the Army Medical Corps.

Dr. Frank V. Martin, of Michigan City, who has completed a service of fifty years in the profession of medicine, was honored at a testimonial dinner by the LaPorte County Medical Society on July fifth. Dr. Martin has through the years been an indefatigable worker in the ranks of organized medicine and richly deserves the honor conferred upon him by his associates.

At a meeting on May fourth, in Brazil, Indiana, the Clay County organization for the Indiana nutrition program was completed and ways and means of placing it before the public discussed. Dr. Lewis C. Rentschler, of Clay City, county health officer, is on the advisory committee.

Dr. Max M. Gitlin, of Bluffton, who has been commissioned a captain, reported for duty at Fort Douglas, Salt Lake City, Utah, on July nineteenth. His brother and associate, Dr. William A. Gitlin, has served with the armed forces about two years and is now a captain at the Air Corps Induction Center, at Cleveland, Ohio.

Trustees of the Central State Hospital re-elected all officers of the board at its annual meeting, June 29, 1942. The officers are: Wallace O. Lee, Indianapolis, president; Mrs. Esther Stalker, of Westfield, vice-president; Marion Ayres, of Shelbyville, secretary, and William Sucow, of Franklin, treasurer.

Dr. Hubert B. Pirkle has been appointed by Governor Henry F. Schricker as acting superintendent of the Indiana State Sanatorium at Rockville, to serve during the absence of Dr. Robert A. Staff who is now with the armed forces. Doctor Pirkle has been chief resident physician at the institution for seventeen years.

Dr. Don Gudakunst, medical director of the National Foundation for Infantile Paralysis, recently inspected the James Whitcomb Riley Hospital for Children in regard to the treatment of infantile paralysis by the new Sister Kenny method, and gave the facilities his approval. Instruction in the new method is being given by Miss Florence Brown, superintendent of nurses at the Rotary Convalescent Home, and by Miss Charlotte Anderson, physical-therapist.

THE AMERICAN COLLEGE OF PHYSICIANS WILL HOLD ITS 1943 SESSION IN PHILADELPHIA, APRIL 13-16, 1943

The American College of Physicians has announced its 27th Annual Session to be held in Philadelphia, Pa., April 13 to 16, inclusive, 1943. Heretofore, the College has held a five-day session, but in the interest of conserving time and expense of its members, the program will be condensed into four days, Tuesday through Friday. Dr. James E. Paullin, Atlanta, as president of the College, will have charge of the program of general sessions and lectures. Dr. George Morris Piersol, Philadelphia, as general chairman, will be responsible for the program of hospital clinics, panel discussions, local arrangements, entertainment, etc. The general management of the session and technical exhibits will be handled by the Executive Secretary, Mr. E. R. Loveland, 4200 Pine St., Philadelphia.

Dr. Lawrence E. Jewett, of Wabash, has been named city health officer for the remainder of the year, succeeding Dr. R. M. LaSalle, who resigned to accept appointment in the Army Medical Corps.

At a luncheon meeting of the Women's Field Army of the American Society for the Control of Cancer, held in Indianapolis June thirtieth, the announcement was made that Indiana citizens had contributed more than $10,000 in 1942 for cancer control. Marion County contributed more than $3,500, which represented an increase of twenty per cent over last year's sum.

Announcement of a five-year, $300,000 grant to The Johns Hopkins University, Baltimore, for an intensive and long-time study of infantile paralysis was made recently by Basil O'Connor, president of the National Foundation for Infantile Paralysis.

This is the largest single grant made by the National Foundation since it was organized in 1938. It will be used to establish and conduct the Center for the Study of Infantile Paralysis and Related Viruses at the Hopkins. The funds which make this and other research projects of the National Foundation possible are contributed each year at the time of the national celebration of the President's birthday.

COLUMBIA UNIVERSITY OFFERS COURSE IN PHYSICAL THERAPY

Columbia University announces that beginning September, 1942, a program of professional studies for the training of Physical Therapy technicians will be offered. This training and instruction will extend over a two-year period and has been organized in compliance with the requirements set down for such programs by the Council on Medical Education and Hospitals of the American Medical Association. The course is being set up in University Extension in close relationship with the College of Physicians and Surgeons of Columbia University, the Nursing Education and Health and Physical Education Departments of Teachers College. The clinical and laboratory instruction will be given at the Vanderbilt Clinic, Neurological Institute, Presbyterian Hospital and New York Orthopedic Dispensary and Hospital.

Two years or sixty semester hours of college, including courses in Physics and Biology, shall be required, or graduation from an accredited School of Nursing or an accredited School of Physical Education.

A Certificate of Proficiency in Physical Therapy will be granted by Columbia University to those completing the course. Further information may be obtained by writing the Office of the Committee on Physical Therapy, Room 303B, School of Business, Columbia University, New York City.

(Photos used on cover page were submitted through the courtesy of the Continental Roll and Steel Foundry Company, Fort Benjamin Harrison, and the International News Photos.)

The Aero Medical Association of America, a national organization which originally was scheduled to hold its 1942 convention in Denver, Colorado, has voted to convene in Indianapolis September third, fourth and fifth at the Claypool Hotel. Indiana physicians interested in Aviation Medicine are invited to attend.

EXAMINATIONS AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on Saturday, February 13, 1943, at 2:00 P. M. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year. All applications must be in the office of the Secretary by November 16, 1942.

All candidates will be required to take the Part I examination, which consists of a written examination, and the submission of twenty-five (25) case history abstracts, and the Part II examination (oral-clinical and pathology examination). The Part I examination will be arranged so that the candidate may take it at or near his place of residence, while the Part II examination will be held late in May, 1943, in that city nearest to the largest group of applicants. Time and place of this latter will be announced later.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

POSTGRADUATE EDUCATION IN OBSTETRICS TO BE CONTINUED

The Indiana State Board of Health in cooperation with the Indiana University School of Medicine and the Indiana State Medical Association will again offer postgraduate instruction in obstetrics during the coming year. As in the past, both intramural and extramural courses will be given, if sufficient interest is shown.

It is recognized that during the present emergency it may be difficult for physicians to leave their practice for intramural studies, so that no regular schedule of courses has been arranged. The facilities of the Indiana University Medical Center will, however, be available for such intramural courses as given in the past, if a sufficient number of physicians make application.

A program of a series of extramural lectures will also be given groups of two or three county societies upon request. These lecture series may be arranged for evening sessions during consecutive four- to six-week periods, and will review the fundamental procedures in obstetrics and illustrate their performance with motion pictures.

The State Board of Health plans to offer special extramural postgraduate sessions in pediatrics to interested groups.

Physicians desiring either type of courses are requested to communicate with the Bureau of Maternal and Child-Health of the Indiana State Board of Health, or to send their requests through the Committee on Postgraduate Education of Indiana University School of Medicine.

Military News

Dr. Eugene C. Murphy, of South Bend, is now stationed at Fort Hayes, Columbus, Ohio.

Dr. W. A. Shuck, of Madison, is now attached to the surgical division of the Army hospital at Camp Crowder, Missouri.

Dr. J. Leo Bartle, of Knightstown, has been commissioned captain and is now stationed at Fort Knox, Kentucky.

Dr. W. D. Close, of Indianapolis, has been commissioned a captain and is now stationed at Camp Joseph T. Robinson, Little Rock, Arkansas.

Colonel John J. Moore, of Fremont, Ohio, widely known Army x-ray and radium specialist, is now assistant commandant of the Medical Department Enlisted Technicians School, which is an important adjunct of Billings' General Hospital, Fort Benjamin Harrison.

Dr. George E. Gates, of South Bend, is with the armored division at Camp Polk, Louisiana.

Dr. C. C. Terry, of South Bend, is now stationed at the Naval Air Station at Lakehurst, New Jersey.

Dr. H. W. Foy, of Fort Wayne, has been commissioned captain and is now stationed at Camp Ruckner, Alabama.

Dr. Lowell R. Stephens, of Covington, now stationed at Laurel, Maryland, has been promoted to the rank of major.

Dr. James T. Pebworth, of Indianapolis, now a captain in the U. S. Army, recently escaped from a torpedoed ship in the South Seas, making a safe landing after two days in an open boat. He sustained a broken rib when he leaped into the life boat. All his baggage was lost with his ship.

Dr. L. N. Geisinger, of Auburn, has been appointed Selective Service medical examiner for DeKalb County.

Dr. Robert G. Husted, of Hammond, is now with the Army Medical Corps at Fort Jackson, South Carolina.

Dr. Richard H. Appel, of Indianapolis, is now a lieutenant commander at the Great Lakes Naval Training Station.

Dr. David L. Smith, of Indianapolis, is now stationed at Selfridge Field, Michigan, as a major in the Medical Corps.

Dr. Harry S. Rabb, of Indianapolis, has been commissioned a first lieutenant and is stationed at Patterson Field, Ohio.

Dr. Arthur Whitlatch, of Milan, has been commissioned a captain in the U. S. Army and is now located at Cheyenne, Wyoming.

Dr. John P. Gentile, of New Albany, captain in the Medical Corps of the U. S. Army, is now stationed at Scott Field, Belleville, Illinois.

Dr. J. L. Sims, of Indianapolis, has been commissioned a captain in the Medical Corps of the Army Air Force at Selfridge Field, Michigan.

Dr. James W. Baxter, Jr., of New Albany, has been commissioned first lieutenant and is now with the medical division of the U. S. Army Air Corps at Chico, California.

Dr. E. Rogers Smith, clinical professor of mental and nervous diseases, Indiana University School of Medicine, has been commissioned a lieutenant commander in the Navy and assigned to the medical center at Bethesda, Maryland.

THE JOURNAL is in receipt of the following note from Dr. Will W. Holmes, of Logansport, who has been promoted to the rank of lieutenant colonel and is now with the Station Hospital at Camp Croft, South Carolina:

"July 7, 1942.

"This sticky evening following the rain will express the pleasure we six Hoosier physicians have the first of every month when the home JOURNAL comes in. We enjoy Austin's flow of words to the utmost. Need more of the same kind of 'scientific papers' as he is putting on the Prexy's Page."

Dr. Raymond R. Calvert, of Lafayette, has been commissioned a major in the U. S. Army Air Force and is now at Selfridge Field, Michigan.

Dr. James Francis Openshaw, of Goodland, first lieutenant in the Army Medical Corps, is now on duty at Selfridge Field, Michigan.

Dr. Gordon Haggard, of Hope, now stationed at Fort George G. Meade, Maryland, has been promoted to the rank of major.

Dr. Francis P. Jones, of Indianapolis, who is stationed with the Headquarters Second Army, Office of the Surgeon, Memphis, Tennessee, has been promoted to a major in the Medical Corps.

Dr. Walter Polhemus, of Indianapolis, an ensign in the Medical Corps of the Naval Reserve, is serving his internship at the Naval Marine Hospital, New Orleans, Louisiana.

High tribute was paid to the thirty-five local doctors who are entering the medical branches of the Army and Navy at a banquet of the Fort Wayne Medical Society at the Elk's Country Club, Tuesday evening, June twenty-third.

Doctor Edgar Mendenhall, president of the society, assured the departing doctors that the remaining medical men will do all in their power to preserve the practices of those leaving.

One hundred ten doctors attended the banquet.

INDIANA UNIVERSITY NEWS NOTES

Dean W. D. Gatch of the Indiana University School of Medicine has announced the appointment of the following nineteen resident physicians for the University's Medical Center in Indianapolis:

Dr. J. Stanley Battersby and Dr. Thomas B. Bauer, chief residents in general surgery; Dr. Richard E. Dukes, chief resident in pediatrics; Dr. Ralph C. Wilmore, chief resident in medicine; Dr. Paul L. Rieth, chief resident in orthopedic surgery; Dr. John J. Flick and Dr. G. W. Hermann, residents in ophthalmology; Dr. Charles F. Roland, resident in radiology; Dr. John R. Spahr, resident in obstetrics; Dr. Donald E. Vivian, resident in pathology; Dr. Glenn Q. Voyles, resident in medicine; Dr. Charles Walters, resident in general surgery; Dr. Frank M. Warder, resident in otolaryngology; Dr. Daniel M. Hare, assistant resident in general surgery; Dr. Laura Hare, assistant resident in medicine; Dr. John E. Heubi, assistant resident in pediatrics; Dr. Carl D. Martz, assistant resident in orthopedic surgery; Dr. Harry N. McClelland, assistant resident in medicine, and

Dr. Wendell E. Covalt, assistant resident in general surgery.

The appointment of the following fellows in internal medicine in the infirmary at the City Hospital also has been announced by Dean Gatch: Dr. Roy V. Pearce, Dr. C. V. Sage, Dr. D. E. Wood, Dr. James D. Pierce, Miss Martha Johnson (technician), Dr. Julius B. Wohlfeld, and Dr. John B. Westfall.

Mrs. Helen Currier has been appointed to have charge of the dietary staff in the Pediatrics Division of the Indiana University Medical Center.

Product of two years' research and writing, manuscript copy of a history of medical education in Indiana, has been presented to the trustees of Indiana University by Dr. B. D. Myers, dean emeritus of the university's school of medicine. Twenty-five schools of medicine have been organized in the state, starting with the chartering of The Christian College at New Albany in 1833, Dean Myers has found. Medical schools have existed at various times since then at Vincennes, LaPorte, Evansville, Fort Wayne, Marion, Lafayette, Indianapolis, and Valparaiso—all of which have passed out of existence or merged into the state's one school of medicine maintained by Indiana University.

Three men from the Medical College of Virginia School of Dentistry have taken up work as members of the faculty of the Indiana University School of Dentistry here under appointments announced by Dean William H. Crawford.

Dr. J. Frank Hall, member of the Medical College of the Virginia staff teaching exodontia, anesthesia and oral surgery since 1937 and business manager of the *Journal of Dental Research*, has been appointed professor of oral surgery in the Indiana dental school, according to the announcement. Dr. Grant Van Huysen, who from 1936 to 1938 was a member of the department of anatomy at the Virginia school, has been named professor of oral diagnosis here, and Dr. Fred W. Hines, who was graduated last month from the dental school of the Medical College of Virginia, has received an appointment as instructor in oral surgery. All three men began their new duties July first.

Societies and Institutions

PATIENCE BY PATIENTS

With the armed forces making inroads into the district's supply of physicians and surgeons, members of the Wayne-Union Medical Society have issued an eight-point program appealing for patience on the part of the public in its demands upon the medical profession.

According to Dr. W. R. Taylor, president of the society, Richmond already has given up more than 40 per cent of its active physicians and surgeons, and this figure is approximately true of the surrounding territory.

Many of the doctors already have been commissioned and called into service. Others are awaiting their call.

"So, with this situation in mind, the medical society held a called meeting to draft a program asking the cooperation and patience of the public to help us give adequate medical service to all," Dr. Taylor said.

The program follows:

"1. Avoid night calls insofar as possible. If a member of the family is ailing through the day, call your doctor; do not wait until late in the night.

"2. Go to the office of your physician whenever possible rather than have him take the time to make calls at the home.

"3. Phone your requests for house calls in the morning, either to the home of the physician or his office. This will enable him to route his calls, thus saving much time.

"4. If your doctor is called to the Army or Navy, choose another physician, but do not wait until an emergency arises before doing so.

"5. Observe the rules of good health. Try to keep yourself well so you will not need a doctor.

"6. We urge all expectant mothers to go to their physician early in pregnancy and make arrangements for delivery.

"7. As is customary, there will be extra charges for calls after 7:00 p.m. and further additional charges for calls from 10:00 p.m. to 7:09 a.m.

"8. Finally, we urge the public to be patient. We will give the best service we can, when we can get to you."

Dr. Taylor pointed out that the society's program was not outlined to work any hardships on the public.

"Emergencies can't be anticipated and we don't mean to imply that if it's after a certain hour you shouldn't call your doctor. What we are asking is cooperation so that all can be served in the best manner possible."

INDIANA STATE MEDICAL ASSOCIATION
EXECUTIVE COMMITTEE

June 28, 1942.

Roll call showed the following present: C. A. Nafe, M.D., chairman; E. O. Asher, M.D.; M. A. Austin, M.D.; F. T. Romberger, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: N. M. Beatty, M.D., co-chairman, Committee on Public Policy and Legislation; A. G. Chittick, M.D., Frankfort; H. C. Ruddick, M.D., and Will C. Moore, M.D., members of the State Board of Medical Registration and Examination.

Membership Report

Number of members June 27, 1942....3177 (110 hon. mems.) (214 in service)
Number of members June 27, 1941.....3160
Gain over last year..... 17
Number of members Dec. 31, 1941.....3228

The statements of receipts and expenditures for May for the association committees and THE JOURNAL were approved.

1942 Annual Session at French Lick, September 29 and 30 and October 1, 1942

Commercial exhibit. 29 spaces sold; 5 to be sold.

The scientific program is as follows to date:

Wednesday, September 30, 1942

9:45 A.M.—Norman Plummer, M.D., New York.
"Treatment of Pneumonia."

10:15 A.M.—Harry E. Mock, M.D., Chicago.
"Skull Fractures and Brain Injuries."

10:45 A.M.—Speaker on "War Medicine" not yet obtained.

11:15 A.M.—R. Arnold Griswold, M.D., Louisville.
"The Treatment of Compound Fractures."

Thursday, October 1, 1942

9:30 A.M.—American Pharmaceutical Association speaker not yet obtained.

10:00 A.M.—Lester R. Dragstedt, M.D., Chicago.
(To choose his own subject.)

10:30 A.M.—Albert Carl Furstenberg, M.D., Ann Arbor, Michigan.
"Acute Infections of the Mouth, Pharynx and Cervical Region."

11:00 A.M.—Arlie R. Barnes, M.D., Rochester, Minnesota.
"Heart Disease."

Banquet speakers

a. James E. Paullin, M.D., president-elect of the American Medical Association, invited by delegates to be guest of honor and one of the two principal banquet speakers.

b. The second speaker is to be selected by Dr. Austin.

c. Letter from the National Association of Manufacturers in regard to speaker at the state meeting brought to the attention of the committee. It was felt that as the program is scientific with the exception of the guest dinner speakers, the offer of the National Association of Manufacturers should not be accepted at this time.

Despite various letters from individuals suggesting that the place of meeting be changed and that the meeting consist only of a business session, the Executive Committee recommended that no change in the place of meeting be made at this time but that the convention program be streamlined as follows:

a. No formal golf tournament and trap shoot will be held. If individual golfers and shooters desire, they may play golf and shoot.

b. There will be no women's entertainment.

c. All those section programs that have been arranged shall stand. If any section does not desire to have a program, its members will be free to attend other section meetings. However, it is urged that each section make some arrangements for election of officers for 1943, or, if a section does not meet, that the 1942 officers serve for 1943.

Badges. The Executive Committee voted to obtain badges like those used at the 1942 session of the Oklahoma State Medical Association.

Legislative, Legal and Social Security Matters

National

The legislation in regard to no charge accounts being extended over sixty days is not applicable to medical services.

A. M. A. legislative bulletin No. 16 brought to the attention of the committee.

Organization Matters

The committee authorized the executive secretary to write a letter for the committee to Dr. Carl McCaskey, president-elect of the state association, expressing regrets that he is ill and wishing him a speedy recovery.

Question of physician in Starke County belonging to Porter County Medical Society. This question is covered in the By-Laws of the Indiana State Medical Association, Chapter X, Section 8, page 28, which reads as follows:

> "A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he has his office or has the major part of his practice."

This information was sent to Dr. N. K. Forster, councilor for the Tenth District, who made the request.

Acceptances have been received from the following physicians who have been appointed to committees to succeed members who have left for service:

(a) Dr. N. H. Prentiss, Fort Wayne, to take the place of Dr. E. L. Libbert as chairman of the Committee on Physical Therapy.

(b) Dr. E. N. Kime, Indianapolis, to take the place of Dr. A. G. Blazey on the Committee on Medical Education and Hospitals.

(c) Dr. M. C. Topping, Terre Haute, to take Dr. D. A. Covalt's place as chairman of the Committee on Civic and Industrial Relations.

The Tippecanoe County Medical Society suggests the following change in the By-Laws of the state medical association:

"WHEREAS, Tippecanoe County Medical Society interprets Section 7, Chapter X of the By-Laws of the Indiana State Medical Association to be in conflict with Section 4, Chapter X in respect to each county society being the judge of its own membership; therefore be it

"RESOLVED, that Section 7, Chapter X be amended to read, to-wit:

"When a member in good standing in a component society moves to another county in this state, his name, on request, shall be transferred without cost to the roster of the county society into whose jurisdiction he moves, provided the transfer is approved by majority vote of the membership of said society."

This is to be presented to the House of Delegates by the delegate from the Tippecanoe County Medical Society.

State Board of Health

It is understood that Dr. John W. Ferree, health officer for the state of Indiana, is applying for a commission in the Navy.

Medical Economics

(1) Question asked in regard to the right of an office nurse to dispense drugs after a physician has left for service is to be answered by Albert Stump in an article in THE JOURNAL. Request also made that Mr. Stump include in this article answers to other questions that have been received recently in regard to the war situation.

(2) Dr. Austin spoke at the annual meeting of the Indiana Pharmaceutical Association, representing the state medical association.

(3) Report on American Law Institute proceedings in regard to the patient-physician relationship. The Executive Committee authorized the executive secretary to send a letter to Kurt Pantzer, thanking him for his interest in expressing the opinion of the members of the state medical association in regard to this matter at the meeting of the American Law Institute held recently at Philadelphia.

(4) *Nurse anesthetists.* This problem is growing acute and a report will be made upon the legal phases of this problem by Albert Stump.

Medical Relief

(1) WPA report for May received by the committee.

(2) Dr. A. G. Chittick of Frankfort, representing the Clinton County Medical Society, appeared before the committee and told of the problems that are arising in that county and the unsatisfactory situation that exists there in regard to the administration of the welfare program. The committee discussed this problem with Dr. Chittick.

(3) Dr. Asher was formally appointed by Dr. Austin to serve as representative of the state medical association on the State Medical Aid Advisory Committee of the State Department of Public Welfare, and also as chairman of the Medical Relief Committee of the Indiana State Medical Association.

Dr. Asher made a report upon the meeting of the State Medical Aid Advisory Committee, and it was suggested that he prepare an analysis of the medical relief setup in this state for publication in THE JOURNAL.

Socialized Medicine

Editorials from *New York Times* and other papers favoring medical service plans brought to the attention of the committee.

League of Women Voters. The year's program established by the League of Women Voters for both the national and state organizations was brought to the attention of the committee. The national organization adopted the following program in regard to health:

> "Development of a public health policy which will insure federal, state and local responsibility for the promotion of public health services."

The Indiana League has the following plank in regard to health in its program:

> "Voluntary non-profit hospital insurance."

The Executive Committee recommended that a letter be written to Mrs. Lester Smith, thanking her for her interest and her help and cooperation in presenting the viewpoint of the Indiana State Medical Association in regard to matters having to do with health.

Report made by Dr. Austin upon medical service in Chilé.

The first compulsory health insurance law passed by the Rhode Island legislature brought to the attention of the Executive Committee.

Article entitled, "Motherhood as an Insurance Risk," an address by Louis H. Pink, superintendent of insurance of the State of New York, delivered before the Conference of National Committee on Maternal Health held at the New York Academy of Medicine on June 20, 1942, advocating sickness insurance, brought to the attention of the committee.

The *Fortune* survey, July, 1942, in regard to socialized medicine resulted as follows:

Question: Do you think the federal government should or should not collect enough taxes after the war to provide MEDICAL CARE FOR EVERYONE WHO NEEDS IT?

Should	*Should Not*	*Don't Know*
74.3%	21.0%	4.7%

On this proposition there is not a single dissenting majority in any income or occupational group or section of the country.

War Medicine

Report made on Army-Navy needs for national situation. This was printed in *The Journal of the American Medical Association* and the July issue of THE JOURNAL of the Indiana State Medical Association.

Indiana needs for 1942 have been so well filled that the recruiting team will be withdrawn from the state July 15. Teams have been withdrawn from about twenty states.

Industrial health problem.

(a) Report made on the meeting of Dr. Selby's Advisory Committee on Industrial Health at Washington on June 15 and 16.

(b) Committee informed that the August issue of THE JOURNAL will be devoted to Industrial Health.

Dr. McCaskey is to present a plan to help physicians after the war is over.

A suggested World War medical organization program has been outlined.

Fees in the emergency. Dr. Bird again brought to the attention of the committee the fact that in his opinion excessive mileage fees are being charged by physicians living in urban centers who are serving rural communities. He addressed a communication to the committee stating that a community which has lost its only physician is being serviced by the physicians of the county seat. The physicians in the county seat are charging $5.00 for coming six miles to render medical service. Such situations, he said, are arising all over the state.

Group Hospitalization and Medical Service Plans

Report made by Albert Stump upon the progress being made by the Indiana non-profit hospital insurance plan.

Report made that commercial companies have increased their activities in selling hospital and surgical benefit plans.

State Board of Medical Registration and Examination and Cult Study Committee

Dr. Ruddick and Dr. Moore of the State Board of Medical Registration and Examination discussed with the committee the problem of licensing physicians who are coming into the state to work in industrial plants.

There being no further business, the meeting was adjourned.

Have you made your
reservation for
the state meeting
at French Lick?
Plan to be there!

LOCAL SOCIETY REPORTS

Fountain-Warren Medical Society members held a meeting at the Methodist church in Covington, on June fourth. Dr. M. A. Austin, of Anderson, was the principal speaker of the evening.

* * *

Hancock County Medical Society members gave a dinner at the Cozy Tourist Hotel on June tenth in honor of eleven Hancock County physicians and one dentist who are either serving or will be called in the near future to serve in the armed forces.

* * *

LaPorte County Medical Society members met at the Rumely Hotel, at LaPorte, on June eighteenth. There was a dinner before the meeting.

* * *

Putnam County Medical Society members held a meeting on June eleventh at the Putnam County Hospital, at Greencastle. It was a dinner meeting and was given in honor of the physicians entering the armed forces.

* * *

Vigo County Medical Society members held a picnic at the Quaker Maid Camp on June seventeenth in honor of the physicians entering the armed services.

* * *

Third District Medical Society members held their May meeting at the New Albany Country Club, New Albany, on May thirteenth. Dr. Misch Casper, of Louisville; Dr. H. G. Hamer, of Indianapolis; Dr. W. T. McConnell, of Louisville; Dr. E. L. Henderson, of Louisville, and Thomas A. Hendricks, of Indianapolis, were the speakers.

Books

RECEIVED

DISABILITY EVALUATION. Third Edition Revised. By Earl D. McBride, M.D., F.A.C.S., Diplomate American Board Orthopedic Surgery, and Assistant Professor in Orthopedic Surgery, University of Oklahoma School of Medicine, Oklahoma City. 631 pages with three hundred seventy-four illustrations. Fabrikoid. Price $9.00. The J. B. Lippincott Company, Philadelphia, 1942.

PHYSICIANS' REFERENCE BOOK OF EMERGENCY MEDICAL SERVICE. A compilation, chiefly from medical literature, presenting the practical experience and lessons acquired in handling civilian war casualties. 268 pages with eleven illustrations. This book has been compiled, printed, and distributed as a public service to physicians and surgeons in the Emergency Medical Service of the United States of America by the Medical Department of E. R. Squibb & Sons, New York, 1942.

DIRECTORY OF MEDICAL SPECIALISTS. Certified by American Boards. 2,495 pages. Price $7.00. Published for the Advisory Board for Medical Specialties by Columbia University Press, New York, 1942.

The second edition of the *Directory of Medical Specialists*, just off the press, contains complete information about more than eighteen thousand diplomates who have been certified by the fifteen American Boards. A separate section is devoted to each American Board, with both a geographic and a biographic listing of its diplomates. In addition, there is an alphabetical list of all diplomates. All these features make the directory unique and invaluable to doctors, whether specialists or general practitioners. Through its use family physicians will be able to form accurate judgment of the qualifications of specialists in any branch of medicine. In addition, the directory is of tremendous value to a nation at war. To Army and Navy administrators, as well as to local and regional Selective Service executives, the directory should become increasingly useful.

REVIEWED

CANCER OF THE FACE AND MOUTH—by Vilray P. Blair, M.D., (Professor of Clinical Surgery, Washington University School of Medicine); Sherwood Moore, M.D., (Professor of Radiology, Washington University School of Medicine); and Louis T. Byars, M.D., St. Louis, Missouri. 599 pages with 260 illustrations and 64 plates. Cloth. $10.00. The C. V. Mosby Co., St. Louis, Mo. 1941.

In this work two surgeons and a radiologist consider particularly therapeutic possibilities of surgical attacks on neoplasms of the face and mouth, with illustrations of useful surgical methods and many good end results, as should be expected from this clinic which is well known in the difficult field of plastic repair. Readers familiar with possibilities offered by more liberal use of radiation therapy will agree that results in these trying conditions would be even better if greater responsibility had been allotted to the radiological member of the team and more use made of the well-tested radiological procedures widely used in recent years.

Details as to use of radium, radon and roentgen rays are indefinite in most instances. No mention is made of the remarkable results often obtained by the use of "low-content" radium needles, as in epithelioma of the lip or buccal mucosa, the needle technic described being now practically obsolete. There is also failure to recognize the advantage of the intra-oral radium mold. Although justified in part by superior surgical skill, the attitude towards radiation of epithelioma involving cartilage of the nose and eyelids in particular is quite at variance with that taken by most of those familiar with the results obtained by roentgen radiation over the past twenty years, as is also their feeling as regards postoperative radiation of mixed tumors of the salivary glands. A more liberal use of fractionated x-ray and intensive radium therapy might somewhat relieve their pessimism as regards neoplasms of the nasopharynx. Only occasionally need radiation sickness be so intractable as described.

The extensive salvage accomplished by this clinic upon patients previously treated by often ill-advised and poorly executed radiological and surgical methods is a source of inspiration to the entire profession. Of almost equal value in view of their experience are their graphic admonitions regarding the responsibility resting upon him who applies the first treatment to a cancer. They wisely state, "If anything, incompetent radiation therapy is worse than incompetent, unskilled surgery." The sixty-four plates, all line drawings, well illustrate the essential points of the authors' technic in repair of defects after operative removal of various types of lesions.

The work is essentially an exposition of surgical methods and possibilities, and as such is a helpful text, but omits many of the radiological technics which have won high regard.

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

In addition to our Professional Liability Policy for private practice we issue a special

MILITARY POLICY

to the profession in the Armed Forces at a

REDUCED PREMIUM

THE MEDICAL PROTECTIVE COMPANY

OF

FORT WAYNE, INDIANA

COOK COUNTY
GRADUATE SCHOOL OF MEDICINE

(In Affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique with practice on living tissue, every two weeks throughout the year. General Courses One, Two, Three and Six Months; Clinical Courses; Special Courses.

MEDICINE—Two Weeks Intensive Course will be offered starting October 5th. Two Weeks Course in Gastro-Enterology will be offered starting October 19th. One Month Course in Electrocardiography and Heart Disease every month, except August and December.

FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting September 21st. Informal Course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting October 5th. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting September 21st. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14th. Clinical and Special Course every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28th. Five weeks Course in Refraction Methods starting October 19th. Informal course every week.

ROENTGENOLOGY—Courses in X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES.

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL
Address: Registrar, 427 South Honore Street,
Chicago, Illinois

ESSENTIALS OF PHARMACOLOGY AND MATERIA MEDICA FOR NURSES. Albert J. Gilbert, M.D., instructor of Pharmacology, Aultman School of Nursing; Selma Moody, R.N., instructor of Nursing Arts, The Presbyterian Hospital, Chicago. 231 pages with 15 illustrations, including 4 color plates. Cloth binding. Price $2.25. The C. V. Mosby Company, St. Louis, 1941.

In the preface the senior author states that the object of the book is "to present the facts and theories of pharmacology and materia medica for nurses in a lucid, concise form, adapted to the limited time available for the course in many nursing schools." The book has been reviewed with that objective in mind.

The chapter on Posology is well written, with several practical suggestions.

The format of the book is acceptable, with drugs acting on the nervous system being given precedence in placement. This is a most important system and therefore the author has shown good judgment in the placement of the chapter.

Drugs are organized according to systems on which they act, stressing the physiology of the body; this is valuable.

The lists of references at the ends of the chapters are valuable to the instructor.

Certain statements are made which do not seem advisable, since the book is a text:

On page 71 the senior author states that students sometimes resort to caffeine to keep awake before an examination; another statement in respect to benzedrine is made on page 76 in reference to college students. Student nurses are taught not to resort to "self medication," therefore, the above statements seem out of order, for they might tend to suggest the use of these drugs.

Several pages, 97-111, are devoted to anesthetics; yet the administration of anesthetics is the work of trained anesthetists, and the preoperative and postoperative care is generally taught in nursing arts classes. The space given to this subject could be used to much better advantage in giving a more complete selection of problems dealing with solutions. The tables in the index should be placed in the chapter on drugs and solutions.

The new types of questions in the index might be useful to an inexperienced instructor, in which case they should be incorporated in an instructor's copy of the book, or as supplementary material—not in a text where students may memorize them.

The book may have a place in a short course, but a more complete text would be more satisfactory both for the student and the instructor. If the former does not possess adequate reference material, the book will be inadequate; and in the case of the latter it is easier to outline and eliminate unnecessary material from a text than to supplement from references which may not be of recent date.

Luella C. Smith, B.S., R.N.,
Instructor Pharmacology,
Methodist Hospital.

ABSTRACTS

MANY WHO ARE CHRONICALLY ILL ARE CONSTITUTIONALLY FRAIL

"Many of the chronically ailing patients seen daily by medical consultants are constitutionally inadequate persons, unable to stand up well to the strains of life," Walter C. Alvarez, M.D., Rochester, Minn., declares in *The Journal of the American Medical Association* for July 4. "They cannot be cured," he continues, "as they hope to be, by the discovery and eradication of any one local disease.

"By grasping desperately at diagnostic straws, by carrying out extensive treatments and performing operations on these persons, we physicians, with the best of intentions, often do them injury, and waste their money and our time.

"We must learn to recognize these persons and their symptoms more often and more quickly so as to save them expense and trouble. In many cases the basic weakness is in the nervous system. In bad cases the disease seems to be an equivalent of insanity. In other cases it goes with an inheritance of a frail body and defective glands of internal secretion.

"Treatment must consist mainly of keeping the patients from doing foolish things and wasting money. They must be taught, if possible, to acquiesce to the situation, to stop hunting for a complete cure, to hoard their energies and to find a job that can be done without too much fatigue.

"In times of war every effort must be made to keep the constitutionally inadequate out of the army. All they do is to break down and go on the pension roll."

In the introduction of his paper Dr. Alvarez explains that "The main trouble with many of the patients I see every day is that they are always weak and tired and full of pains and always getting sick in one way or another. Many have been operated on several times, but still they aren't well and they cannot get about and have fun as other people do. Some of the men cannot earn a living, and many of the women complain that they haven't strength and 'pep' enough to be a satisfactory wife or mother. They drag around, they cannot do their housework, and they haven't the energy to go out anywhere with their husband.

"Again and again these patients go to some consultant or medical institution with the idea that this time they will get examined so thoroughly that the cause of all their troubles will be found and perhaps removed. Again and again they get overhauled, and each time the physician finds some little abnormality or physical peculiarity which he views with alarm and treats for a while. . . ."

The symptoms of inadequacy are many, Dr. Alvarez says, the most common being those of excessive fatigue and a lack of energy and reserve strength. Other common complaints are aches and pains everywhere, nervousness, faintness, dizziness, indigestion, poor appetite, loss of weight, regurgitation, a sensitive colon, constipation, palpitation, clammy hands, cardiac neuroses, defective or painful menstruation, sterility, poor resistance to infection, slow recovery from any illness or injury, insomnia, "chronic fever," "weak eyes" and an irritable bladder.

Dr. Alvarez believes that in most cases the primary constitutional weakness is in the nervous system. "I feel sure of this," he says, "because (1) I have found constitutional inadequacy sometimes in finely built men and women, and (2) I have found it so often in the relatives of the insane. I believe the severe forms of constitutional inadequacy are commonly equivalents of insanity . . . I feel sure that many inadequate persons are tired most of the time because they use their brains so unwisely and waste so much energy on foolish thinking, silly worrying, conscience searching, jealousies, flare-ups of temper, conflicts with people, and riots of emotion. We healthy persons would be tired out too if we were to use our brains so uneconomically. . . ."

He says that the condition is inherited from forbears who suffered either from inadequacy, frailness of body, poor pituitary development or some form of psychopathy.

URGES STUDY OF HORMONES AND VITAMINS IN RELATION TO SENILITY

There is sufficient evidence to indicate that if clinical trials of the hormones and vitamins will be simultaneously organized and performed in several hospitals on a

large number of senile patients there might be a reasonable hope of obtaining, even during the period of the present war, some practical results, especially with vitamins, in the way of helping older men keep fit both mentally and physically. V. Korenchevsky, London, England, declares in *The Journal of the American Medical Association* for June 20. Summarizing his paper "The War and the Problem of Aging," the author says:

"The process of aging of several functions and capacities, so far examined with the methods used, starts in the human organism at the age of 25 to 30, of some of them even much earlier (as also suggested by certain changes in the organs and tissues recorded by Minot, Robertson and myself).

"From the practical point of view, this decrement with aging of some functions and capacities becomes considerable from the age of 50 and especially 60.

"It must be emphasized, however, that the conditions of the functions and capacities in some young people can be as 'old' as or 'older' than their average condition at the age of 60 to 70, and, conversely, in some old people of 50 to 70 their condition can be equal to or better than the average of these features at the age of 20 to 25.

"There are also important and irreplaceable advantages of old age: wisdom has been acquired and ability has been tested and proved.

"There is sufficient evidence to indicate that (a) pathologic changes occur with aging in the sex, thyroid and adrenal glands; (b) a similarity exists between certain senile changes and some features of deficiency of these glands and also of vitamin deficiency. At the same time (c) successful treatment of some senile features with hormones and vitamins has been claimed, although it must be emphasized that apparently a deficient technic was used in many investigations.

"All these data point to the urgent necessity for clinical research in order to elucidate the favorable effect of these compounds on old people.

"If proved, the physiologic, natural, stimulating properties of these compounds might be especially helpful to old people in lessening the effect of great strain and in increasing the working capacity in periods of such great crises as war. . . .

"This limited and practical aspect of the problem of aging is one of the war problems, and research on this subject is one of the urgent tasks connected with the war."

OUTLOOK FOR MUMPS CONTROL IMPROVED

An outbreak of mumps in a military establishment may lead to serious consequences in the way of days lost through hospitalization, Conrad Wesselhoeft, M.D., late Captain, Medical Corps, United States Army, Boston, and Charles F. Walcott, M.D., Major, Medical Corps Reserve, United States Army, Cambridge, Mass., declare in the current issue of *War Medicine*, published bimonthly by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council. Present day basic knowledge of the nature of this disease and an understanding of how some of its manifestations can be alleviated and its spread prevented, should enable one to cope with it more successfully than in the past, the two men say.

SEASICKNESS

In a review of the literature on seasickness and other forms of motion sickness, Donald McEachern, M.D.; Guy Morton, M.D., and Peter Lehman, M.D., Montreal, Canada, declare in the current issue of *War Medicine*, published by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council, that from the standpoint of prevention little is suggested in the literature other than conservative precautionary measures directed to "general fitness" and avoidance of dietary indiscretions.

"The importance of dietary indiscretions, such as farewell banquets, as predisposing factors was stressed by most writers," the three Montreal physicians state. "Various types of preparatory diets were recommended, whereas excessive use of alcohol or tobacco was discouraged. R. J. Blackham stated that temporary starvation will do no harm but that the patient's fluid intake must be maintained and recommends the use of stout, neat brandy and iced dry ginger ale.

"Most authors advised the person subject to seasickness to dress warmly and to avoid chilling. They were in general agreement that a person is less likely to become seasick if he lies supine with the head directed toward the center of the ship.

"R. A. Bennett claimed that warm salt water baths (90 to 95 F.) of half an hour to one hour's duration are of considerable preventive value and that as an actual therapeutic measure they often produce permanent relief. The importance of sleep in the prevention of seasickness has been emphasized. . . ."

In the introduction to their paper, Drs. McEachern, Morton and Lehman say that "Although seasickness is as old as history, there is a remarkable conflict of ideas regarding its cause and absence of an adequate remedy for it. Much that has been written is in speculative vein, and facts are few and far between. Despite the universal and disabling character of the malady little effort has been made to study it scientifically. . . ."

As for the possible mechanisms of motion sickness, the three men say that it is probable that a number of factors operate together in the production of the usual state of motion sickness. From the work of several investigators it would appear that rapid acceleration and deceleration, especially up and down, is the main factor in the production of the condition.

"Acclimatization, or the development of sea legs," the three physicians say, "usually requires two to four days but may take several weeks. Such immunity, if it develops, may be specific for the movements of the particular ship involved. Thus, a person acclimatized on an ocean liner may fall victim to the movements of a lake or channel steamer, or he may lose his immunity and become ill on the same liner at a later date. . . ."

They say that several authors have recognized two types of seasickness, one said to be most common in men and the other in women. With men the main symptom is headache with discomfort; vomiting is unusual, but if present it occurs at long intervals and temporarily relieves the symptoms. In the type more common among women frequent vomiting is the rule, while headache is rare. In the majority of cases, however, symptoms seem to be intermediate between the

ZEMMER
Write for Literature
PRESCRIBE OR DISPENSE ZEMMER
Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled. Write for general price list.
Chemists to the Medical Profession
IN-8-42
THE ZEMMER COMPANY • OAKLAND STATION • PITTSBURGH, PENNSYLVANIA

A ONE MAN DEFENSE COMMITTEE

Your income becomes more important in these times than ever before.

You can set up your own ONE MAN DEFENSE COMMITTEE for protection of your income against attacks of disability due to accident or sickness.

Through your Medical Society you can obtain wide-open Sickness and Accident Protection at a worth-while saving.

Consider these advantages which are available to you provided you accept them while you are still in good health.

1. EVERY TYPE OF DISABILITY COVERED.
2. PROTECTION MAY BE CONTINUED TO AGE 70.
3. RATES DO NOT INCREASE WITH AGE.
4. NO INDIVIDUAL CANCELLATION.
5. NO MEDICAL EXAMINATION.

Your coverage is handled as a confidential matter between the agent and yourself.

JAMES R. GEIGER

Lincoln Bank Tower Fort Wayne, Indiana

—*Representing*—

Commercial Casualty Insurance Company
Newark, N. J.

When Diagnosing

Consider Our Shoes for Posture, Balance, Support or Correction

Heid assures a most careful shoe fitting as to doctors' prescriptions for type of shoe, last and correction to be attached for problem feet—those beyond the regular shoe store service.



Stock and Made-to-Measure Shoes

Orthopedic and standard shoes built flexible, resilient or rigid (not the same type for everybody) are featured and fitted by Irvin Heidenreich. Also persons sent in for good, comfortable shoes in regular or odd sizes are fitted at reasonable prices.

HEID'S HEALTH SHOE

1546 N. ILLINOIS ST. (Sq. East of Meth. Hosp.)

extremes of the two types.

As for treatment, the authors say that in the mechanical field several writers have mentioned the use of various abdominal belts and supports with a view to reducing the mobility of the heavy organs in the abdomen or the vein pressure changes in the abdominal vessels.

"Many authors," the Canadian physicians say, "claimed that rhythmic breathing in time with the ship's movements is a valuable measure. J. T. McIntosh informed us that in many personal experiments performed during channel crossings he satisfied himself as to the usefulness of the maneuver. His technic was to inspire deeply and to press the lower part of the belly upward with the hands during the ship's upward movement. With the last downward movement of the ship forced expiration was made. This procedure became automatic after an hour or so."

Regarding drug treatment they say that most authors considered two types of drugs, those useful in depressing a certain part of the autonomic nervous system and those which act as sedatives to the entire body. Authors differed with regard to dosage, depending on their own experience. Drs. McEachern, Morton and Lehman say that their review of the articles on drugs made it clear that "the difficulties of assessing the value of any therapeutic agent are great."

In a note the three men add that a study was made recently of thirty-eight instances of chronic seasickness in American naval personnel. The patients fell into two groups, those constitutionally sick, with history of car, bus and other kinds of motion sickness, with efficiency at sea extremely low, and those severely seasick without a history of motion sickness ashore, with a fair degree of efficiency at sea. They say the investigator suggested that those of the first type are not useful at sea and might be either discharged from the Navy or placed on shore duty. He felt that the other type will improve with time and treatment or with transfer to a larger ship.

LISTS TEN AIDS BELIEVED TO BE USEFUL IN REALIZING RELAXATION

Ten "tricks" which are believed to be useful in realizing relaxation are presented in *The Journal of the American Medical Association* for February 14 in an editorial which points out the importance of relaxation in relationship to longevity. *The Journal* says:

" 'If we could learn how to balance rest against effort, calmness against strain, quiet against turmoil,' says Dr. Josephine Rathbone, 'we would assure ourselves of joy in living and psychophysical health for life.' The psychologists believe that people who live dynamically without being too tense have four main attributes: first, rhythm in their activities with great swings in output and accomplishment, alternating with periods of repose; second, a sense of values which makes it possible to minimize effort and minimize strain; third, ability to reduce muscular tension in any part of the body consciously whenever desired, and, fourth, a readiness to fall asleep at will.

"While these attributes may develop spontaneously to some extent in some persons, it is also possible to cultivate them in a measure. In order to aid such cultivation, ten tricks are presented which are believed to be useful in realizing relaxation. They are:

"1. Cut down on the intensity of your thinking half an hour before retiring. (Play Chinese checkers, plan an excursion for the week-end, write a letter to a friend, fill with pleasant things you have been doing.)

"2. Take plenty of time to get ready for bed (next morning's clothes, leisurely bath, and so on).

"3. If you like to read in bed choose nonfiction or a 'hard' book. Force your mind to grapple with cumbersome facts, bore it into unconditional surrender to sleep.

"4. Transplant your mind from fears or hates to a field which has interest without excitement (a new wardrobe, possibly).

"5. Make your mind hop from one idea to another.

Just as the mind loses consciousness and sleep comes, thoughts become disjointed and scattered. (Start with some happy episode in childhood, for example.)

"6. To quiet the body, get rid of any pressure or pain. (Lighten weight of covers, clothes.)

"7. Tepid bath without a rubdown. (Get into bed a little damp and chilly. As the body becomes warmed it becomes more and more comfortable. If during the night one becomes sleepless, throw back covers until body becomes uncomfortably chilly. Then when the covers are pulled up again, the body once more sinks into coziness.)

"8. Imitate the slow, deep rhythmic breathing of sleep. (Helps regulate the circulation and may ease the mind and emotions; also tensions in the abdomen.)

"9. Relax the muscles completely.

"10. Get rested before trying to sleep. (Get into bed an hour or more before your regular time for retiring. Do so night after night to build up a reserve of rest and fall asleep without the old struggle.)

"The balance between what can be accomplished by education and practice and what is innate in producing relaxation and longevity is a delicate one. Physicians have long known that people with a low blood pressure, a low basal metabolic rate, a low pulse rate and a low intake of food—if all of these are not too low—tend to live longer than those in whom these physical factors are at extremely high levels. Perhaps equally important is a low threshold for the sense of humor—a mental attitude which does not take life too seriously."

DYSENTERY CARRIERS

Since it is only slightly absorbed into the blood stream, succinylsulfathiazole, a sulfonamide compound, is much less likely to produce severe toxic or poisonous reactions than sulfaguanidine in the treatment of dysentery carriers, William M. M. Kirby, M.D., and Lowell A. Rantz, M.D., San Francisco, report in *The Journal of the American Medical Association* for June 20. They found succinylsulfathiazole to be as effective in treating dysentery carriers as sulfaguanidine and as ineffective in treating typhoid carriers.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, May, 1942

DISEASES	*May 1942*	*Apr. 1942*	*Mar. 1942*	*May 1941*	*May 1940*
Primary Tuberculosis	3	6	8	1	0
Active Tuberculosis	170	115	78	218	137
Arrested Tuberculosis	25	5	6	0	0
Chickenpox	363	460	503	247	248
Measles	875	573	401	5116	57
Scarlet Fever	299	450	578	435	421
Smallpox	3	3	2	8	12
Typhoid Fever	7	3	5	5	17
Whooping Cough	281	181	153	197	115
Diphtheria	11	22	34	38	14
Influenza	20	97	160	55	13
Pneumonia	47	80	116	90	81
Mumps	195	161	141	158	624
Undulant Fever	1	4	2	2	4
Meningitis	3	3	2	4	2
Rocky Mt. Spotted Fever	1	0	0	0	0
Septic Sore Throat	1	0	0	0	1
Vincent's Angina	2	1	3	0	0
Rubella	156	80	61	330	0
Encephalitis	1	0	0	4	0

Barry

PERENNIAL OR CONTINUATION TREATMENT of Hay Fever offers protection to your patients throughout the entire year, not only from the primary offenders but also from secondary offenders not included in the treatment.

Also eliminates next year preseasonal build-up injections and reduces cost of materials.

Reorder perennial treatment material NOW, by private formula number or list irritants, proportions, and concentration now being used.

Service to the medical profession for more than a decade.

BARRY Allergy LABORATORY INC.

9100 KERCHEVAL DETROIT

Allergenic Extracts
Serums . . Vaccines
Biological Specialties.



LABORATORY APPARATUS

Coors Porcelain Pyrex Glassware
R. & B. Calibrated Ware
Chemical Thermometers
Hydrometers Sphygmomanometers

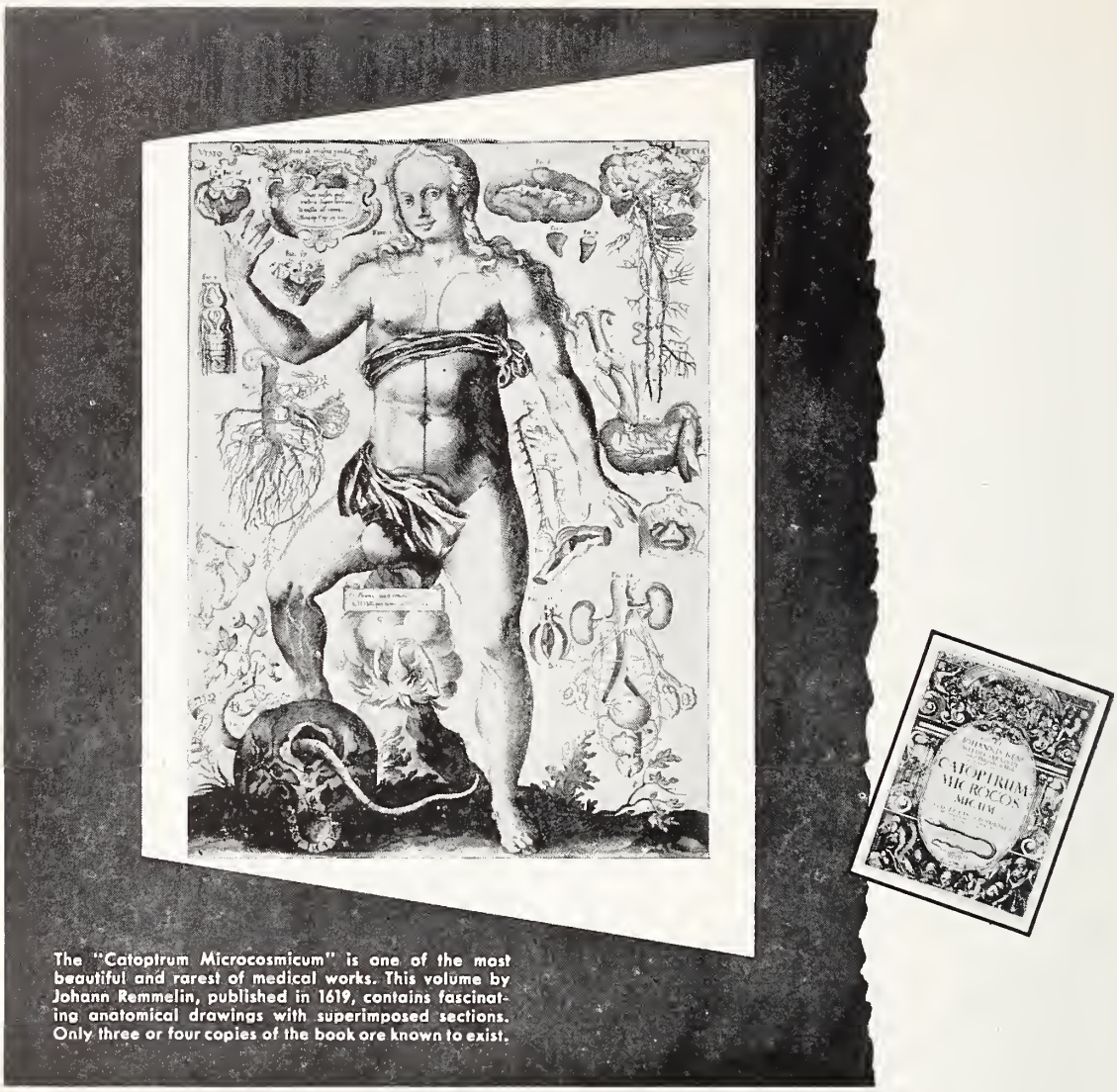
J. T. Baker & Co.'s C.P. Chemicals
Stains and Reagents
Standard Solutions

• BIOLOGICALS •

Serums Bacterins Media
Antitoxins Vaccines Pollens

We are completely equipped, and solicit your inquiry for these lines as well as for Pharmaceuticals, Chemicals and Supplies, Surgical Instruments and Dressings.

The RUPP & BOWMAN CO.
319 SUPERIOR ST., TOLEDO, OHIO



The "Catoptrum Microcosmicum" is one of the most beautiful and rarest of medical works. This volume by Johann Remmelin, published in 1619, contains fascinating anatomical drawings with superimposed sections. Only three or four copies of the book are known to exist.

Ever Since Eve

woman probably has had to contend with the menopause. Only during a little more than a decade, with the availability of effective drugs—as epitomized by Theelin—has corrective medical treatment been possible.

Theelin replaces or supplements diminishing estrogenic ovarian secretion to "see the patient through" until endocrine readjustment occurs.

Hundreds of published papers pay tribute to Theelin, a pure crystalline estrogen, for meritorious service in such hypogonadal states as the climacteric, senile vaginitis, and kraurosis vulvae; and also gonorrheal vaginitis in children.

Theelin is doubly checked to assure uniform potency . . . by the laboratories of Parke, Davis & Company . . . and the Biochemical Laboratory of St. Louis University.

Theelin Suppositories for vaginal use and Kapseals† Theelol for oral administration are supplied for sustained therapy between injections and for patients who travel.

†Trademark Reg. U. S. Pat. Off

Ampoules THEELIN • Kapseals THEELOL

products of modern research offered to the medical profession by

PARKE, DAVIS & COMPANY, DETROIT, MICH.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
ISSUED MONTHLY under Direction of the Council
OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 SEPTEMBER, 1942 NUMBER 9

DELIRIUM TREMENS†

DAVID A. BOYD, JR., M.D.*
WILLIAM B. ROSSMAN, M.D.**
INDIANAPOLIS

Delirium tremens is a psychiatric syndrome of old vintage. Its essential features were described in the Eighteenth Century, but it was not recognized as a clinical entity until 1813. Frequently the psychosis was noted in sailors who drank heavily between voyages and was appropriately named "the horrors." Apparently the clinical features of the syndrome have remained constant throughout the years and, until comparatively recently, there has been an almost equal lack of variation in the therapy and recovery rate. The disorder occupies a position on the borderline of internal medicine and psychiatry and has received too little attention from both groups. Unfortunately, the medical profession has sometimes regarded the disorder as an innocuous and somewhat humorous episode in the career of an alcoholic individual and the deadly nature of the syndrome and its complications have not been appreciated. If incorrectly or inadequately treated, the mortality rate of delirium tremens may reach 35 per cent[1, 2, 3] in complicated cases but can be reduced to less than 5 per cent [3, 4, 5, 6] by adequate rational therapy. This report deals with the clinical features and therapeutic program in a series of one hundred and eight consecutive cases in which two deaths occurred.

ETIOLOGY

Delirium tremens is an acute metabolic and psychological disturbance occurring in some individuals who use excessive amounts of alcoholic beverages, but the exact etiological factors are unknown. Certainly many drinkers enjoy a long alcoholic career punctuated by prolonged debauches without ever achieving this acute psychosis. Probably less than 5 per cent of chronic alcoholics suffer from delirium tremens.[7] There is also a difference according to the beverage used, and the disorder is comparatively rare in those who drink beer exclusively. Further, it does not occur in the alcoholic novice regardless of the severity of the drinking bout but is a disorder of the habitual drinker, usually not occurring until after three to five years of imbibing. The reason for this is unknown, but it may be that some central nervous system damage from chronic alcoholism is a prerequisite or that the metabolism of alcohol is different in a novice and a habitué.

The disorder usually comes on after a prolonged alcoholic bout or when some accident, illness or incarceration causes a cessation of steady drinking. These observations led to the traditional belief[8, 9] that the syndrome was precipitated by this sudden abstinence and was due to a physiological necessity for alcohol either to maintain sedation and equilibrium of the nervous system or

* From the Department of Neurology and Psychiatry, Indiana University School of Medicine.

† Presented at the meeting of the LaPorte County Medical Society on April 16, 1942.

** Huesmann Fellow, Louis C. Huesmann Foundation Fund.

[1] Ranson: The Results of Drug Treatment in Five Hundred Cases of Delirium Tremens. *J. A. M. A.* **52**: 1224-1227, (April) 1909.

[2] Ranson and Scott: The Results of Medicinal Treatment in Eleven Hundred and Six Cases of Delirium Tremens. *Am. J. Med. Sc.* **141**: 673-687, 1911.

[3] Cline, W. Jr. and Coleman, J.: The Treatment of Delirium Tremens. *J. A. M. A.* **107**: 404-409 (August 8) 1936.

[4] Wortis, H., Wortis, S. and Frank, P.: Some Aspects of the Biochemistry of Alcoholic Delirium. *J. Nerv. & Ment. Dis.* **89**: 714-715, 1939.

[5] Wortis, H.: Delirium Tremens. *Quart. J. Stud. Alc.* **1**: 251-267 (Sept.) 1940.

[6] Rosenbaum, M., Piker, P. and Lederer, H.: Delirium Tremens. *Am. J. Med. Sc.* **200**: 677-688 (Nov.) 1940.

[7] Bowman, K. and Jellinek, E.: Alcoholic Mental Disorders. *Quart. J. Stud. Alc.* **2**: 312-390 (Sept.) 1941.

[8] Williams, I.: The Emergency Treatment of the Alcoholic. *J. Nerv. & Ment. Dis.* **74**: 161-174, 1931.

[9] Ashworth, W.: Treatment of Drug and Alcohol Habituation. *South Med. & Surg.* **93**: 665-667, 1931.

to neutralize some theoretical circulating toxin. The preponderance of evidence now discounts the abstinence factor. In England, 63,000 inebriates were imprisoned and suddenly deprived of alcohol, yet only 246 (less than 0.5 per cent) developed delirium tremens.[10] In a recent series of cases[11] it was observed that 74.5 per cent developed delirium tremens while still drinking heavily. Many patients in the present series were brought to the hospital in delirium and had been drinking excessively to the moment of admission. Others had suddenly become abstinent a few days before but in every case they had voluntarily discontinued drinking because of prodromal nausea, nervousness, insomnia and malaise. Their delirium was not due to abstinence; the abstinence was due to the initial delirious prodromes. It is true that the steady drinker may develop the syndrome when abstinence is suddenly enforced by accident or illness but even in these cases it is probable that the delirium is really due to the physiological imbalance and disturbance of body economy rather than the cessation of drinking. At present, there seems to be no reason to attribute delirium tremens to abstinence, to believe that continued alcoholic ingestion is a prophylactic, or that alcohol is a valuable therapeutic adjunct once the syndrome develops.

According to some observers[4, 7] the disturbance of nutrition is of prime etiological significance although there is disagreement regarding its mode of operation. During the spree there is progressive disinterest in food until finally the whole caloric intake may be supplied by alcohol. When the drinker does eat, the food chosen does not supply the necessary vitamins or caloric value since it usually consists of hamburger sandwiches, chilé and black coffee. In addition, there is often a severe gastritis during the debauch and the derangement of gastric function impairs assimilation of food and vitamins. These facts have suggested to some workers that starvation acidosis is the main etiological factor. Others[12] believe that disturbance of vitamin metabolism is of greater importance. There is no doubt that the majority of patients with delirium tremens have a vitamin deficiency since the intake has been nil and the high caloric value of the alcohol has greatly increased the vitamin requirements. Examination of these patients reveals many clinical signs of vitamin B deficiency and some advanced cases have pellagra. Deficiency of vitamin C in the blood and spinal fluid has been demonstrated.[13] Further, the discovery of the etiological role of vitamin B deficiency in the polyneuritis of alcoholics[14] encouraged the belief that the same relationship existed in delirium tremens. However, only a few[12] maintain that vitamin B deficiency is the specific etiological factor, and the majority believe that it is only one of numerous predisposing causes. The latter belief gains support from the work of Rosenbaum et al,[6] who gave an alcoholic patient 50 mg. of B_1 parenterally, 500 mg. of nicotinic acid orally and a quart of whiskey each day with the development of delirium tremens on the thirteenth day. It is probable that vitamin deficiency is an important link in the etiological chain, but it does not appear to be the specific causative factor.

Some authors maintain that the primary cause of the syndrome is a disturbance of water metabolism and cerebral edema. This theory is supported by postmortem observations of cerebral edema and by experimental work. Nuzum and Lecount[15] showed that specimens of brain tissue from alcoholics had a capacity to absorb water which was unequalled by specimens from patients dying of other causes. These facts suggested[16] that delirium tremens was a syndrome due to "wet brain" and increased intracranial pressure. This belief is not widely accepted at present although nearly everyone agrees that some degree of cerebral edema and disturbance of water metabolism is present. Again, these changes are more likely a part of the generalized disturbance of metabolism rather than specific etiological factors.

The most recent etiological theory is that delirium tremens is a toxic psychosis associated with disturbance of cerebral water metabolism and utilization of carbohydrates.[4, 12, 7] This disturbance of cerebral physiology is, in turn, a part of a generalized derangement of body economy which includes a diminution or loss of the detoxification functions of the liver, acidosis, deficient vitamin and nutritional metabolism, and disturbances in water, mineral and carbohydrate metabolism. This concept suggests that the metabolism of certain drinkers is in a state of unstable equilibrium which may be upset either by the exhaustion, dietary deficiencies, et cetera, of a prolonged spree or, in the steady drinker, by some intercurrent disturbance of body economy. This would explain the fact that delirium tremens often is apparently precipitated by fractures, surgical operations, head injuries, infections, exposure and hemorrhage. It

[10] Jelliffe and White: Diseases of the Nervous System. Fifth Edition, Page 1066-1067, 1929.

[11] Piker, P.: On the Relationship of the Sudden Withdrawal of Alcohol to Delirium Tremens. *Am. J. Psych.* **93**: 1387-1390, 1937.

[12] Kiene, H., Streitwieser, R. and Miller, H.: The Role of Vitamin B_1 in Delirium Tremens. *J. A. M. A.* **114**: 2191-2194 (June) 1940.

[13] Wortis, H., Wortis, S., and Marsh, F.: Vitamin C Studies in Alcoholics. *Am. J. Psych.* **94**: 891-912, 1938.

[14] Jolliffe, Colbert and Joffe: Etiologic Relationship of Vitamin B (B_1) to Polyneuritis in the Alcohol Addict. *Am. J. Med. Sc.* **191**: 515-526 (April) 1936.

[15] Nuzum, F. and Lecount, E.: The Ability of the Brain Tissue to Take Up Water in Delirium Tremens and Other Conditions. *J. A. M. A.* **67**: 1822-1826, 1916.

[16] Scelath, C. and Beifeld, A.: Cerebral Edema (Wet Brain) in Chronic Alcoholism. *Am. J. Med. Sc.* **149**: 881-889, 1915.

is possible that this etiological concept is completely erroneous, but it is the most plausible one available at present.

PATHOLOGY

The present knowledge regarding the pathology of delirium tremens is meager and unsatisfactory. Practically nothing is known of the neuropathological changes in the early phases, but it is believed[3] that cerebral edema and vascular congestion occur with subsequent irritation and nonspecific degeneration of nerve cells. These ideas concerning the early pathological changes are largely speculative since it is impossible to be sure that the observed findings are due to delirium tremens rather than to antecedent alcoholism.

In the later stages there is marked swelling, congestion and edema of the meninges and the same phenomena occur in a lesser degree in the brain tissue.[16, 17, 18, 3, 5, 7] The ventricles are dilated, the sulci widened and there is marked accumulation of fluid in the subarachnoid space. Microscopic examination of the brain reveals nonspecific degenerative changes in the nerve cells and some widening of the spaces around the cells and blood vessels. It is this pathological concept of the "wet brain" of delirium tremens that has long dominated the therapeutic approach and has been the main reason for the "dehydration" regimé. Although these pathological features characterize the end stage in fatal cases, it has not been demonstrated that the same conditions exist in the average case of delirium tremens. Usually the severity of the clinical picture is out of proportion to the mildness of the neuropathological findings, and this has led to the suggestion[4, 5] that the final explanation will be found in the disturbed physicochemical functioning of the brain rather than in demonstrable tissue changes.

SIGNS AND SYMPTOMS

Prodromes: In the majority of our cases the patients had been drinking large amounts (one to three pints) of spirituous liquors daily for three weeks to three months. In some this episode had begun as a prolonged drinking party and the patient had continued drinking to avoid the anguish of the "hangover"; in others the excessive intake had occurred as the climax of gradually increasing indulgence. After a variable time the alcohol is no longer taken in a festive spirit but as a means of combating the increasing malaise, emotional tension and physical distress. Usually the appetite is lost and the sight of food may nauseate the patient. The usual routine of life is broken and he sleeps and drinks at irregular hours, attempting to alleviate the increasing restlessness and intolerable anxiety. Sensations of quivering, general shakiness and an objective tremor appear and at first these symptoms can be eradicated by more alcohol. Sleep is broken and unrefreshing and is punctuated by horrible, terrifying dreams, often of threatening monsters, catastrophic events and scenes of carnage. Often the patient rolls restlessly in bed, finally falling into a fitful sleep only to be awakened by these dreams and further frightened by shifting shadows in the room. The emotional tension and insomnia are combated by more alcohol, and he may drink considerably during the night in a futile effort to induce sleep. The drinking continues during the day and small amounts cause mental confusion, complete disorganization of thought, irritability and extreme restlessness. Some patients continue drinking in this manner until, or even after, actual delirium and hallucinosis occur. Others abstain at this point because of vomiting, malaise and anxiety, but in three to five days progress on to a full-blown syndrome. In some cases the reaction may be halted at this point either by the patient's hardihood and good fortune or by careful medical management.

The Acute Reaction: This phase is ushered in by an abrupt elevation of temperature of one or two degrees with a corresponding rise in pulse and respiratory rate. (Fig. I, first day. Fig. II, second day. Fig. III, second day.) We have learned that when these elevations occur in a patient who has been drinking heavily a full-blown syndrome will soon follow. In our experience a carefully kept temperature chart has proved to be one of the most valuable indices of the patient's progress.

The physical picture of a patient in delirium tremens is quite characteristic. He is obviously in a toxic condition and appears acutely ill. The conjunctiva is bloodshot and the facial expression is that of anxiety or terror. The face and neck are bluish-red or fiery red in color but this does not extend below the neck line. Profuse perspiration drips from the face and body. The tongue is usually clean, glistening and beefy red and may be swollen with its margins scalloped by teeth indenta-

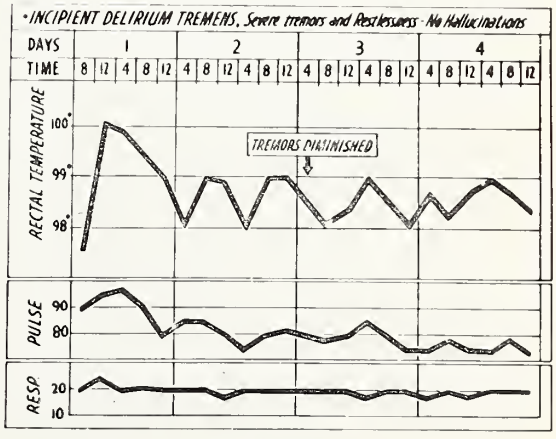


Figure 1.

[17] Hoppe, H.: The Treatment of Delirium Tremens by Spinal Puncture, Stimulation and the Use of Alkali Agents. *J. Nerv. & Mental Dis.* **47**: 93-99, 1918.

[18] Goldsmith, H.: Spinal Drainage in Alcoholic Deliria and Other Acute Alcoholic Psychoses. *Am. J. Psych.* **10**: 255-265, 1930.

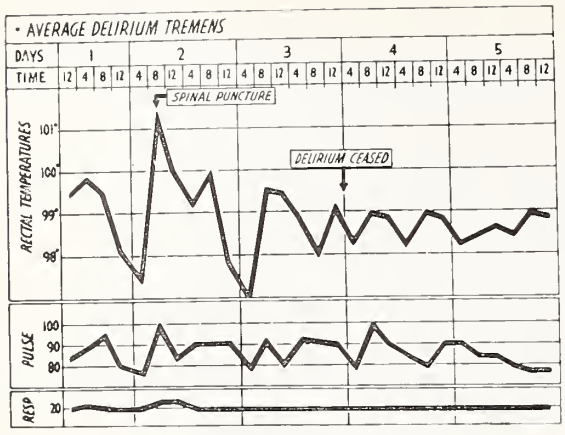


Figure 2.

tions.[19] If severe avitaminosis exists, the mucous membrane of the pharynx may be quite red. The skin of the dorsum of the forearms is often dry and scaly, and reddish-brown patches may be found over the backs of the wrists and elbows in incipient pellagra.

Neurological examination usually reveals pupillary dilatation and often sluggishness in reaction to light. Speech is slurred and indistinct. The deep reflexes are hyperactive and become more so as the disorder increases in severity. If there is an associated polyneuritis, pain may be elicited by pressing on nerve trunks. The gait is ataxic and the patient stumbles and weaves from side to side. This is apparently due to disturbance in the central nervous system centers (vestibular or cerebellar) rather than to weakness. This impairment of equilibration in association with a constant restless desire to move about is responsible for many injuries.

Typical paroxysmal convulsive seizures may usher in the syndrome or may occur during the course of the illness. The experienced patient refers to these as "whiskey fits." In one series of cases[20] 9 per cent of patients had one or more convulsions during the course of the illness. Other observers[21] report a rate of 26.2 per cent. In the present group only two patients had convulsions. It is believed[20] that convulsions do not indicate a poor prognosis.

The biochemical studies of blood and urine are incomplete at present. The literature[7] reports that the majority of patients have albuminuria sometime during the course of the illness, and this was true in our cases. The biochemical examinations of the blood, as summarized by Bowman and Jellinek,[7] suggest that there is a disturbance in cholesterol and protein levels and lowering of the blood chlorides.

The psychiatric picture is equally characteristic. The patient is mentally clouded and confused. Although he knows his name, he usually gives the date incorrectly and is completely disoriented as to his location. The hospital is identified as a hotel, public meeting place, lodging house or tavern. The doctors and nurses are misidentified as old friends, members of the family, public or police officials, or as old drinking companions. It is usually easy to convince these patients that they have met the examiner previously and, after a moment's embarrassment, they recall the acquaintance and give elaborate imaginary details. The most outstanding characteristic is the vivid hallucinosis. Visual images predominate and are rich in detail, coloring and variation. Various animals, reptiles, birds and humans predominate, and these may either be threatening to the patient or merely go about their ordinary activities. Often the actions of these images are bizarre; one patient crushed lizards only to see the fragments reunite to pursue him again. Queerly clothed Lilliputian men and animals may run about the bed. Occasional patients may see a whole complex scene on the wall with the characters conversing, resembling a cinema with sound. A few are completely transported to a new and horrible environment; one patient found himself wandering on a battlefield amid death and destruction. Usually the patient is terrified by his inability to comprehend the environment and these strange visions, but rarely one is observed who is amused by the situation. A surprising degree of insight is sometimes noted, the patient stating that although he is reacting to these hallucinations he knows that they are not real. His state resembles that of a dreamer who cannot awaken from a horrible nightmare although he recognizes the unreality of the mental images.

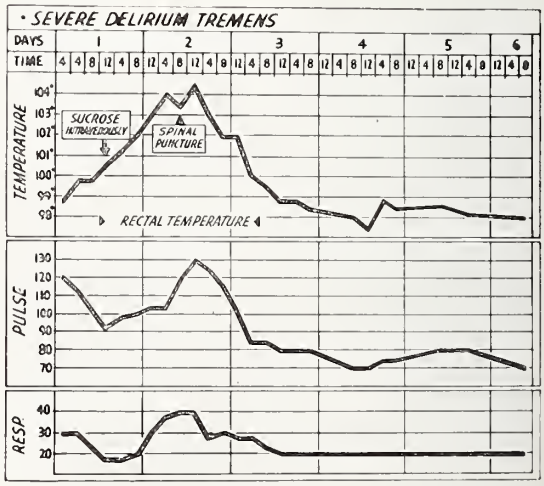


Figure 3.

[19] Blankenhorn and Spies: Oral Complications of Chronic Alcoholism. *J. A. M. A.* **107**: 641-642 (August 29) 1936.

[20] Rosenbaum, M., Lewis, M., and Piker, P.: Convulsive Seizures in Delirium Tremens. *Arch. Neur. & Psych.* **45**: 486-493, 1941.

[21] Kat, W. and Prick, J.: Pathogenetic and Clinical Aspects of Delirium Tremens. *Schweiz. Arch. f. Neur. und Psych.* **45**: 303-340, Zurich, 1940. (Hartford Retreat Abstract.)

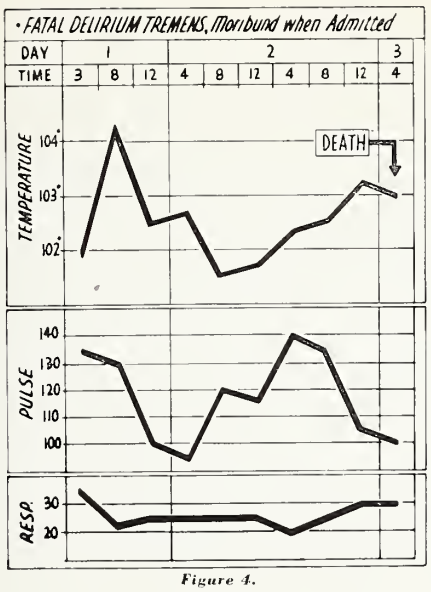


Figure 4.

The hallucinations of hearing are usually not so vivid and often consist of voices from inanimate objects or apparently emanate from people in the next room.

The emotional state is usually one of fear and bewilderment. The patient finds himself confronted by horrible hallucinations and is incapable of understanding what is happening to him. In a state of panic, he often attacks those about him or attempts to escape his persecutors.

There is frequently a state of heightened suggestibility and it is possible to convince the patient of almost anything. He can be shown imaginary animals in the room or persuaded to take nonexistent objects from the examiner's hands. This suggestibility and tendency to illusion often causes difficulty during the night; one patient believed the ceiling light globe was a grimacing human face and another was terrified by "ghosts" which were movements of the curtains and shifting shadows.

Terminal Phase: This occurs when the average case is not medically controlled or when the patient is not brought for treatment until moribund. (Fig. 4.) It is ushered in by an abrupt rise in temperature to 103°-105°. A short, violent, maniacal episode may occur but the majority pass directly into shock and collapse. The patient soon passes into semicoma, the face and body twitching and the fingers fumbling and picking at the sheets. The skin is clammy and pallid, the pulse is rapid and of low tension and the heart action weak. Stiffness of the neck and muscular rigidity may occur.[16] The patient may mutter unintelligibly for a time but deep coma and death soon ensue. (Fig. 4.)

COURSE AND PROGNOSIS

The usual course of the syndrome is from two to five days. Recovery often occurs after a long, deep sleep. The patient emerges from the delirium with mental clarity but physically depleted. Insomnia or disturbing dreams may persist for a few nights unless adequate sedation is given.

The majority recover completely except for residual nervous tension and that amount of mental deterioration which existed before the delirium and was due to the antecedent alcoholism. A few do not recover their previous status at once but have a Korsakoff's syndrome of loss of memory and confabulation. This may improve after several weeks or months or may be permanent.

The prognosis for recovery is excellent if early and adequate therapy is instituted and the mortality rate can be reduced to about 2 per cent[6] in uncomplicated cases. When there is a complicating head injury, pneumonia or cardiac failure, the mortality rate may rise to 35 per cent.[3] In our experience, the death rate in the latter group can be greatly reduced by adequate therapy.

TREATMENT

Incipient Phase: No alcohol is permitted in any stage of the disorder. Absolute bed rest is instituted and rest is induced by sedatives (paraldehyde, sodium amytal). If sleeping, the patient is not awakened for any reason. Cool, well-sweetened fruit juices and fluids are forced, the minimum intake being 4000 cc. A light, high calorie, high vitamin diet is given and reinforced by Vitamin B Complex. If the patient is constipated, laxatives or an enema are given. Adequate sleep at night is secured by sedation. A large percentage of patients in the incipient phase may avoid the acute syndrome by adequate treatment.

Acute Phase: (1) Hydration. The older regime restricted the fluid intake to 1000 cc. in twenty-four hours in an effort to dehydrate the brain and meninges. Little attention was given to the obvious toxicity, general dehydration or the amount of fluid lost by perspiring. It is now the general belief[22, 23, 24, 25, 26, 27, 6, 7] that prompt hydration is one of the most important therapeutic measures. We insist on an intake of at least 4,000 cc. of fluid per day. The nurse forces water and fruit juices and this is supplemented, if necessary, by intravenous infusions of 5 per cent glucose in normal saline. An intravenous infusion of 1,000 cc.-1,500

[22] Hogan, J.: Treatment of Acute Alcoholic Delirium. *J. A. M. A.* **67**: 1826-1829, 1916.

[23] Brush, N.: The Treatment of Delirium Tremens. *Southwest Med.* **15**: 560-564, 1931.

[24] Piker, P. and Cohn, J.: The Comprehensive Treatment of Delirium Tremens. *J. A. M. A.* **108**: 345-349 (Jan.) 1937.

[25] Piker, P.: Clinical Evaluation of Use of Fluids in Treatment of Delirium Tremens. *Arch. Neur. & Psych.* **39**: 62-67 (Jan.) 1938.

[26] Thomas, J., Semrad, E., and Schwab, R.: Observation on the Use of Fluids and Lumbar Puncture in the Treatment of Delirium Tremens. *Ann. Int. Med.* **12**: 2006-2009, 1939.

[27] Bowman, K. and Keiser, S.: Treatment of Disturbed Patients with Sodium Chloride Orally and Intravenously in Hypertonic Solutions. *Arch. Neur. & Psych.* **41**: 702-710, 1939.

cc. is usually the first treatment given if the patient is in a serious condition. There is some evidence that the febrile reaction is caused by dehydration,[27] and we have seen the temperature fall overnight from 103° to approximately normal when fluids were forced. More recently, we have administered sodium chloride[27, 5] in two gram capsules every four hours to create thirst and to help retain fluids in the body.

(2) Lumbar puncture. Treatment of delirium tremens by drainage of spinal fluid was instituted in 1915.[28] The spinal fluid pressure, by impression, seemed to be increased, and this was accepted as a fact [17, 29, 18, 23, 3] until more recent observations[30, 31, 26, 32, 20] with careful manometric readings revealed that an actual increase in pressure existed in only 25 per cent of cases. Nevertheless, treatment by spinal drainage has been advocated by many.[17, 18, 3, 24, 33] With the patient in a horizontal position, spinal fluid was slowly drained until the droplets were widely separated (usually 30-60 cc.). In our experience, spinal drainage is a very valuable measure in selected cases. We regularly drain all the available fluid in cases where the temperature is rising, the tremors becoming more severe, the reflexes more active and the hallucinations more prominent. We have seen unmanageable patients fall into a deep sleep following this procedure and awaken mentally clear and cooperative. Often this treatment has halted an unfavorable course when all other measures were failing. It has been noted[3] that sometimes the initial drainage was small in amount (10-15 cc.) and not followed by clinical improvement but on second drainage, eight hours later, there was a copious flow of fluid and marked clinical improvement. This is in accord with our experience.

(3) Sedation. Paraldehyde is still the most valuable sedative in delirium tremens if given in adequate doses (3-4 drams). Intravenous sodium amytal (7½-15 grains) is often of value in uncontrollable excitement. Morphine is absolutely contraindicated and must not be used because of its action in promoting edema of the brain and elevating intracranial pressure.

(4) Restraint. Physical restraint should be avoided if possible because it frightens the bewildered patient and initiates new delusions of persecution. Usually restraint can be avoided by good nursing and careful sedation. However, the patient must be kept in bed and constant supervision maintained to prevent injuries, trauma sustained in efforts to escape and suicidal attempts.

(5) Diet. A light, soft, high calorie, high vitamin diet is given.

(6) Vitamin Therapy. If there is evidence of avitaminosis, vitamin therapy should be instituted at once. Daily intravenous injections of 50 mg. of thiamin chloride may be given if the condition is serious, and it has been reported[6] that it has a sedative effect in some excited patients. Nicotinic acid (400-500 mg. daily) is administered orally if there is any evidence of incipient pellagra, but in one series of cases[6] this seemed to prolong the delirium, possibly by causing dilatation of the cerebral vessels and a rise of intracranial pressure. Several of our patients had severe vasomotor reactions. Vitamin C is supplied by fresh fruit juices.

(7) Intravenous dehydrating solutions. Concentrated solutions of glucose and sucrose were not used in our cases. The average case of delirium tremens can be managed satisfactorily without the use of intravenous dehydrating agents. In fact, intravenous administration of 50 per cent glucose has been criticized[26] because the secondary rise in intracranial pressure may be higher than before administration.

(8) Digitalis. It is no longer a routine practice to administer digitalis since there is no evidence that it prevents toxic myocarditis in delirium tremens.[6] The early administration of digitalis is recommended only when there is evidence of im-

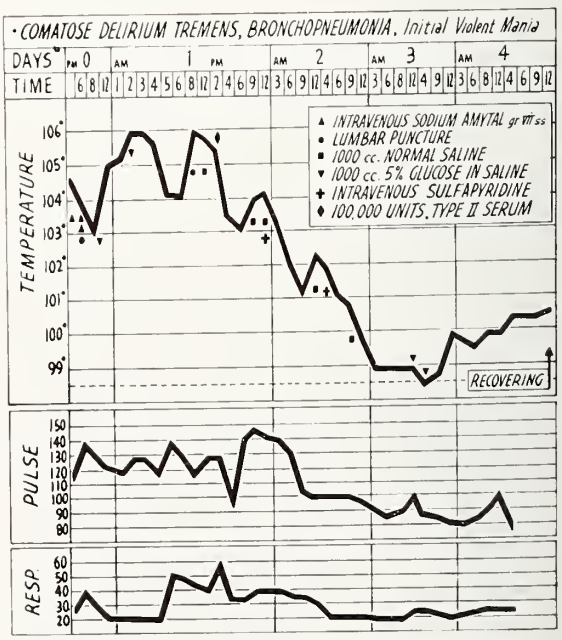


Figure 5.

[28] Steinebach, R.: The Cerebrospinal Fluid and the Effect of Lumbar Puncture in Delirium Tremens. *Deutsche Med. Wchnschr.* **41**: 369-372, 1915.

[29] Levinson, A.: Cerebrospinal Fluid in Health and Disease. C. V. Mosby Company, St. Louis, 1929.

[30] Rosenbaum, M., Herren, R. and Merritt, H.: The Cerebrospinal Fluid in Acute Alcoholism. *New Eng. J. of Med.* **215**: 914-915 (Nov. 12) 1936.

[31] Merritt, H. and Fremont-Smith, F.: The Cerebrospinal Fluid. W. B. Saunders Co., 1938.

[32] Rosenbaum, M.: The Cerebrospinal Fluid in Delirium Tremens. *J. A. M. A.* **116**: 2487-2488 (May 31) 1941.

[33] Ebaugh, F.: Delirium Tremens. Oxford Medicine. Psychiatry for Practitioners. Oxford University Press. 1940.

paired heart action and râles in the bases of the lungs. In these cases it is well to digitalize the patient early rather than to wait until severe cardiac disturbance occurs. Usually there is no indication for its use.

(9) Nursing care. Good nursing care is of paramount importance. An interested nurse with a confident, reassuring attitude is invaluable in quieting the fears of an excited, frightened patient. It also requires patience and persistence to carry out the above program and to insure an adequate fluid intake.

Terminal Phase: The patient may progress to the terminal phase before medical assistance is secured. In this case there is no time for dilatory treatment; every therapeutic measure must be used at once. Measures to combat the shock and collapse, stimulants and intravenous infusions of 5 per cent glucose in normal saline should be employed. In our experience, the patient in collapse has a low spinal fluid pressure and is not benefited by spinal fluid drainage. Every therapeutic measure should be used even though the patient's condition seems hopeless. A surprising number of apparently hopeless cases with complicating head injuries, fractures, pneumonia or cardiac disorder will recover if the treatment is sufficiently energetic. (Fig. V.)

CONCLUSION

Delirium tremens is an acute metabolic and psychological disturbance with an unnecessarily high mortality rate which can be appreciably reduced by adequate therapy based on physiological principles. After the patient has recovered from the acute psychotic episode, he requires sympathetic understanding and guidance to prevent a resumption of alcoholism and further attacks of delirium tremens. This necessitates a careful analysis of the character deficiencies and factors leading to excessive drinking and a resynthesis of a more wholesome personality pattern which will not need alcohol as a means of escape from painful conflicts. These problems of chronic alcoholism and its attendant difficulties, in spite of their tremendous social, economic and medical significance, have received insufficient attention and still remain to be solved.

CARDIOLOGY IN GENERAL PRACTICE*

GEORGE M. COOK, M.D.
HAMMOND, INDIANA

This section of the meetings of the American Medical Association, which has been dedicated to general practice, will, I am sure, be no sterile experiment. I believe we all feel that it has been needed for many years.

General practice has been a field of much wider latitude, but the development of the specialties and the ceaseless change of our social order has brought many limitations. This does not mean that the general practitioner is on his way out. It does mean that his work is more clearly defined. The diagnosis and management of heart disease is almost an inseparable part of general practice, and because of its growing importance it is becoming more and more necessary that the physician doing general practice shall be more efficient in managing this problem.

In all of the branches of medicine and their specialties there are but two which are devoted to the study, diagnosis, and treatment of the cardiovascular system from birth to death. These are cardiology and general practice. Pediatrics, obstetrics, surgery, internal medicine, neurology and other specialties include the diseases of the heart only in certain age limits, or insofar as they enter into their particular problems; but cardiology and general practice include the entire realm of the abnormal conditions and diseases of the heart from the congenital malformations in the newborn to the narrowing and closure of the coronary arteries of the aged.

The cardiologist (I am speaking of the real and not the pseudo-cardiologist) has spent many years learning the groundwork of anatomy and physiology of the heart and vascular system. He has been intensively trained in pathology and has had many years in clinical study. He is the investigator, teacher and consultant and the one to whom the general practitioner must look as his chief and leader for knowledge and progress in the cardiovascular field. The family physician sees the majority of the patients and has the marked advantage of seeing them frequently and over a long period of time. This opportunity of detailed study of the clinical picture as it progresses, which is so essential to the knowledge of any disease, is almost the exclusive opportunity of the general practitioner.

As you well know there is not an unlimited number of conditions which attack the heart and its sac. Of the five or six most common forms of heart disease, namely, rheumatic fever, thyroid heart disease, syphilitic aortitis, hypertensive heart disease, the disease of the coronary arteries and pericarditis, the practitioner sees them first and often enough to become efficient in their diagnosis and management. Because of his relation to the

* Presented before the Section on Miscellaneous Topics at the annual meeting of the American Medical Association held in Atlantic City on June 10, 1942.

patient, as a rule, he sees many of them in the earlier stages of pathology. The diagnosis then may be more difficult but the chances of improvement are greater.

There is a defeatist attitude toward the treatment of heart disease which, I believe, is much too prevalent in general practice. This attitude diminishes the proper interest and certainly discourages the incentive to master a clear understanding of this subject. But the responsibility of the physician is ever present, and this defeatist attitude only deprives the patient of his best chances of improvement. An example of this is the insidious beginning of rheumatic fever, without joint pains, which, when clearly understood by the physician and explained carefully to the family, makes for easy and proper control of the long enforced bed rest. And thyroidtoxicosis, when masked as heart disease, offers the opportunity for a dramatic cure. To the practitioner, in most communities, whether or not he does obstetrics, falls the duty of managing and advising cardiac cases complicated by pregnancy. This is no small responsibility.

I believe that it is customary when referring surgical cases, certainly in smaller communities, that the practitioner make his own appraisal of the patient's general condition. He is more competent than the surgeon to do this, and this appraisal of the cardiovascular system should be very carefully made, for there are times when he must be the sole judge as to whether the hazard is too great or if the risk must be taken.

The great number of patients who come to the practitioner with imaginary heart disease or conditions which they interpret as heart disease makes it imperative for the physician to have a clear knowledge of the normal heart. Positive and accurate decisions of these problems send many patients home well or lead to proper treatment and many cures. I believe it is a greater sin to make a crippled cardiac out of a well man than to make a mistaken diagnosis of a sick one.

Atherosclerosis of the coronary arteries with its multiple and complex pathology always causes a large proportion of serious cases in the practice of general medicine. The majority of these people do not seek, nor find, their way to the cardiologist. They remain problems for the general practitioner. They constitute an important part of his practice.

Here might be added a word about the electrocardiogram, for it is in the diseases of the coronary arteries that the electrocardiogram has its greatest value. It has become a most important aid in diagnosis and treatment. It is not too difficult to learn to read the majority of the tracings, and with a good history and the clinical findings before one it is far easier and safer to make the interpretations. The general practitioner alone has this complete picture. The numerous electrocardiographers who have sprung up and who are willing and anxious to make a diagnosis of the pathology from tracings alone only serve to discredit this valuable aid.

The layman's interest in heart disease is ever increasing, both from a personal and a public health viewpoint. Insurance companies, newspapers, books and magazines keep the public informed of the great mortality of heart disease. Of course, the big question in the mind of the public is, "What can be done about it?" Most of these answers are sought in the offices of the family physician.

The treatment of heart disease is not dramatic and it is seldom rewarded with cures, but it is in the province of the family physician to advise the patient and his family what can be done about it. In many cases very much can be done about it when the problem is set clearly before the patient and his family, which brings comfort to the patient, satisfaction to the family, and respect to the physician.

The question often arises in every practitioner's mind as to when he shall find time to take these careful histories and make these examinations. I believe that this can be answered in part by another question. Just how does the practitioner wish to spend his time? He develops medical acumen only by careful and detailed work, and time is part of the price. He takes time in his obstetrics and thinks nothing of it. If his interest is sharpened sufficiently to this great problem, he will always find time.

Some advanced instruction in this work is essential; it is seldom that a doctor can successfully become his only teacher. Several excellent postgraduate courses are offered, which, if taken seriously and followed up at home by intensive reading and careful and patient work over a period of time, will develop an efficient working knowledge for more accurate diagnosis in heart disease. The refinement of the art of history-taking and the development of the special senses cost only time and patience. As a rule expensive laboratory examinations are unnecessary.

General practice will increasingly demand of the physician not only a narrower field but higher standards of work, and the demand for better diagnosis and treatment of heart diseases will be of first importance.

CHRONIC BRUCELLOSIS

NEAL DAVIS, M.D.
LOWELL, INDIANA

The acute phase of the infection in man commonly known as "undulant fever" is well recognized and extensively described in medical literature. The chronic phase of the same infection, more properly known as "chronic brucellosis," is very prevalent among our rural population; however, its recognition is more difficult and for the most part overlooked. It is estimated that 10 per cent of our rural population is infected. A study of the writers' clinical records for the past three years makes this figure seem conservative.

The two common symptoms which are shown in all cases are weakness and pain. This weakness is very commonly described as being present, or coming in the morning. The patient gets up tired and feels as if the morning will never end. However, by noon he gains strength and by evening he feels pretty good. The weakness is usually referred to the hips and knees. Frequently patients say their knees buckle out from under them and they actually fall. Spells of sleepiness may accompany the weakness, and at times it is necessary to rule out epilepsy because of the similarity with this disease. Neurasthenia is the usual diagnosis given this phase of brucellosis.

The pain which is common to all cases of this disease may affect any member of the body. It may be a headache or a backache. It may have the subjective symptoms of a herpes zoster but show no skin manifestation. In the extremities it may be very excruciating and appear to be a neuritis. Such a case was seen in 1939 and was sent to the University of Chicago Clinics for diagnosis. I quote their consultation note: "Mr. R. C., whom you so kindly referred to the University of Chicago Clinics, was admitted to the hospital on September 15, 1939, and discharged on September 19, 1939.

"The patient complained of four attacks of severe cramp-like pains which began in his wrist and radiated into the hands. They lasted for several hours and required 1½ grs. morphine and 6 grs. sodium amytal for relief. Mr. C. informed us that these attacks occurred three times in the right hand, and once in the left. In addition he had also suffered from frequent fleeting pains in various parts of his body. He also informed us that he had suffered from some epigastric distress for a number of years.

"Throughout Mr. C.'s stay in the hospital the temperature, pulse and respiration were essentially normal. His blood pressure was 105/65, and there was no essential difference in the two arms. His general physical examination was entirely negative except for the absence of his teeth and a slight enlargement of the prostate gland. The neurological examination was also entirely negative except for moderate retinal arteriosclerosis. No sensory changes could be found. There was no muscular atrophy. The reflexes were all normal and intact. A careful examination to determine the presence of a cervical rib or of a scalenus anticus syndrome revealed nothing which would lead to a diagnosis of such a condition.

"Urinalysis was repeatedly negative. The blood count revealed 6,000 W.B.C.'s and 4,200,000 R.B.C.'s, and there were 13 gms. of hemoglobin. On smear we found 61% polymorphonuclear leukocytes, 38% lymphocytes and 1 eosinophile. The R.B.C.'s showed a slight diminution in hemoglobin, but were otherwise normal. Wassermann and Kahn tests on the blood were negative. A gastric analysis revealed no free hydrochloric acid in the gastric juices. A lumbar puncture was performed. The initial pressure was 80 mm. of fluid. There was no evidence of obstruction of the subarachnoid space, the fluid contained no excess of globulin, no cells, and 49 mgm. per cent total protein. Examination of the stool revealed no blood or other abnormalities. The blood uric acid was 2 mgm. per cent—a perfectly normal figure. X-rays of the cervical spine revealed nothing abnormal. Fluoroscopic examination of the gastro-intestinal tract showed no evidence of peptic ulcer or of a gastric neoplasm.

"As we have already informed Mr. C., we are at a complete loss to explain the cause of his pain, and, not knowing its cause, we are not in a position to make any very valuable suggestions regarding therapy."

This patient sold his farm equipment and moved to town believing himself an invalid. Diagnosis of chronic brucellosis was made from agglutinins in blood, and a proper therapy put the man back to work. There has been no return of symptoms.

At times the pain localizes about a joint and one thinks of arthritis, but there is no swelling, no point tenderness, and as one examines such a patient some focal infection comes to mind. After a thorough search reveals no focus, or the removal of a focus fails to relieve the symptoms, some elusive functional disturbance suggests itself. These patients are seldom completely incapacitated, they keep on working and complaining and have to be content with the diagnosis of rheumatism, although the usual therapy gives no relief.

Chest pain has received very little mention in the literature, but in my experience it has been one of the most common and persistent symptoms. It is usually described as precordial, and a review of the history of a case usually suggests angina pectoris. However, a second thought shows many differences. It usually accompanies a low blood pressure. Most of the patients are young and

show no evidence of arteriosclerosis. There is a history of tachycardia and neither this symptom nor the pain may have any definite relation to effort. Strenuous exercise may bring on an attack one day and may fail to do so the next day. Although the pain may radiate down the left arm, it usually is confined within the chest. The patient feels as if he wants to lie down and rest. There is no orthopnea. Paroxysmal tachycardia with a pulse rate as high as 160 per minute may develop at any time; it may awaken the patient in the middle of the night or appear upon arising in the morning. Although the attack may appear suddenly, it just wears off gradually, usually as the result of a sedative. I have never seen one suddenly revert to a normal rhythm. Tachycardia is not always accompanied by an increase in chest pain, but the patient usually complains of exhaustion, becomes very restless, and fears death. He fights the effect of a sedative and refuses to go to sleep. It requires great reassurance and large doses of sedatives to produce sleep. These symptoms do not respond to digitalis, aminophylline, or the circulatory dilators. They come and go, month after month, until the patient loses confidence in himself or his ability to carry on a normal life. I quote a letter sent to me in consultation on such a case:

"Mr. E. S. visited the University of Chicago Clinics on the 5th and 12th of August, complaining of pains over the precordium since the first week of January, 1937. The pains were dull in character. He felt tired and lost fifteen pounds in weight in six months. He has occasional headaches and associates heart consciousness with them. The precordial pain is not associated with headaches and heart consciousness. He has dyspnea on climbing two flights of stairs. He has been unable to do regular farm work.

"Physical examination: Muscular, well-tanned man of 31, weighing 165 pounds, temperature 99.6 degrees, pulse rate 132. His lungs were normal on physical examination. His heart was not enlarged to percussion. He had regular but rapid heart rate. The second pulmonic sound was markedly accentuated with a rough systolic murmur. Blood pressure was 116/70.

"Laboratory findings: W.B.C. 5,300; Hgb. 91%; Polys. 43%; Lymphocytes 53%; Monocytes 20%; Eosinophiles 1%; and Basophil 1%. Wassermann and Kahn reactions were negative. Urine normal, negative for occult blood. Agglutinations for Brucella abortus, Bacillus typhosus, and paratyphosus A and B negative. Electrocardiograph: Q-IV is rather deep, T-I and T-II low amplitude, and T-III inverted. Rate 108 per minute. P-R interval, 17 seconds. Impression: Myocardial damage. X-rays of the chest showed normal lung fields. The trachea was slightly displaced to the left at the suprasternal notch. Two blood cultures were taken and showed no growth.

"Mr. S.'s examination did not show any definite illness which would account for his symptoms. Such abnormal findings as were found, namely, rapid pulse rate, electrocardiograph evidence of myocardial damage, and loss of weight indicate that he may have some active infectious process which is affecting his heart. It is possible that this is a form of rheumatic fever or endocarditis. I suggested to Mr. S that he remain under your care and frequent observation, and should avoid strenuous exercise with the expectation that a more definite diagnosis may be made in time." This patient had a very severe reaction from a skin test for brucellosis, and vaccine therapy has been very gratifying.

Two other conditions that accompany many cases are colitis and pelvic disorders. The colitis is usually associated with constipation and mucus in the stools. The usual therapy relieves the cases, but they do not clear up until the brucellosis is terminated. I have followed a woman through three abortions, and then taken her through a normal pregnancy during vaccine therapy. I have seen another case with a titer 1-200 go through a normal pregnancy untreated. The cord blood in this case was negative for brucellosis agglutinins. Another case had menstruated every day for two years. Clinical study showed no pathology in the pelvis, and hormone stimulation failed to produce any results. Vaccine therapy stopped the flow after one month. Subsequent overdoses of vaccine always produced hemorrhage.

DIAGNOSIS

The diagnosis of the disease is easy in the acute case, but the absence of fever and an ambulatory patient does not bring to mind the commonly held concept of undulant fever. Chronic brucellosis requires consideration similar to that of syphilis, but it differs in that the diagnosis does not rest on laboratory findings. The various tests devised to date are either impracticable in the average clinician's office, or are misleading in the information they give. Blood cultures are seldom positive in the chronic case. The opsonocytophagic test is difficult to interpret. The commonly accepted agglutination test is very unreliable as it is run in most laboratories. Antigens must be fresh and constantly checked for activity. We have seen them go dead when only two weeks away from the manufacturer, and yet I have had laboratory workers admit their antigens were as much as one year old. The reaction must be viewed on warm plates over a well-lighted but black background. A special viewing box should be used, but few laboratories are thus equipped. After a test is properly done with active antigens, the information is of very little diagnostic use. A high titer does not establish the diagnosis any more than a failure to agglutinate rules it out. I have seen the titer in the same individual rise and fall from 0 to 1-400. Repeated tests are necessary to determine the range of the titer. A positive test only proves an infection at some time, and does not prove its activity now. The skin test is very dangerous and should not be used

until it is shown that the agglutinins never rise over 1-25. Above this titer severe reactions may occur. Under this titer the skin test should be used to determine the amount of allergic disturbances produced by the disease, and hence give some idea of the initial dose of vaccine which is safe to use. I believe the final diagnosis of this disease should be made from clinical observation and proved, not by laboratory tests but by therapeutic trial of vaccine.

TREATMENT

Many treatments have been reported for this disease. I have failed to see results from sulfanilamide, sulfapyridine, or sulfathiazole, having used each drug as it appeared on the market. Shock therapy is undesirable because of the very severe reactions which result, the inability to control such reactions, and the lack of favorable results afterwards. I rely entirely upon vaccine therapy. Certain stock vaccines are very dangerous when used in chronic brucellosis. The literature distributed concerning such vaccines is very unreliable in regard to dosage. Many patients develop an allergy to the protein of brucella, and a standard dose of vaccine is as dangerous as a massive dose of old tuberculin in pulmonary tuberculosis. If a skin test is positive, the patient should be started on a 2 cc. of a 1-1000 dilution of standard vaccine as made by most companies. I advance it by 2 cc. twice per week through the various dilutions until 1 cc. of stock vaccine is given. This dose is repeated at weekly intervals until the patient is symptom-free. The vaccine must never be given subcutaneously since cold abscesses often result. Always give it intramuscularly. If induration appears at the site of an injection, treatment must be suspended until absorption takes place.

I am not prepared to talk about cures. My patients are instructed to return to me if symptoms recur. I have given three series of treatments to some patients, each time their symptoms are milder and require a smaller number of doses to become symptom-free. Other patients have remained symptom-free for two years after one series of treatments.

DETERMINATION OF ALIGNMENT IN THE HIP-NAILING PROCEDURE

WILLIAM DONALD DAVIDSON, M.D.*
EVANSVILLE, INDIANA

The most difficult step of the entire hip-nailing procedure, that of determining the correct alignment, is a problem in geometry, for it is a determination of the angles at which a nail of appropriate length is to be inserted. In the following analysis of the problem a solution is suggested which varies considerably from the technics most commonly employed.

The problem may be stated as follows: "A satisfactory reduction having been obtained, the hip being held in extension, moderately wide abduction and FULL internal rotation, a nail is to be inserted along the central axis of the femoral neck with its end terminating in the center of the head approximately ⅜ inch lateral to the joint line." In this position the femoral neck lies in the horizontal plane, with the central axis passing through the center of the head directly beneath that point at which the femoral artery crosses under the inguinal ligament, midway between anterior superior spine and symphysis pubis; projected laterally, it is represented by a point on the lateral aspect of the femoral shaft ¾" to 1" distal to the vastus externus line on the greater trochanter. These two landmarks are available to assist the surgeon.

Three variable factors must be considered, namely, the degree of normal anteversion of the femoral neck, the angle of inclination, and the length of the central axis of the neck. Although the degree of normal anteversion may vary from 12 to 25 degrees, the position of internal rotation is said to bring the femoral neck into the horizontal plane. Any doubt as to whether this is indeed the case is eliminated by stipulating a position of FULL internal rotation, for O'Meara[1] has shown that no matter what the degree of normal anteversion may be, full internal rotation invariably brings the neck into the horizontal plane, further rotation being prevented by the action of the short posterior hip muscles.

The angle of inclination, or angle at which the central axis of the femoral neck intersects the long axis of the shaft, may vary from 115 to 135 degrees. In the popular guide-wire technic, in which alignment is determined chiefly upon a roentgenographic basis, the long axis of the shaft is regarded as being the initial line of the angle, directing the guide-wire from the lateral point towards the center of the head to find the terminal line. This is a faulty method, for as shown in Fig. 1 any discrepancy between the true central axis and the line along which the guide-wire is inserted will increase medially, thus lessening the chances of placing the wire in a satisfactory position. On the other hand, when the central axis of the neck is regarded

* Major, Medical Corps, United States Army.

[1] O'Meara, James: *New England Med. & Surg. Journal* (Jan.) 1935.

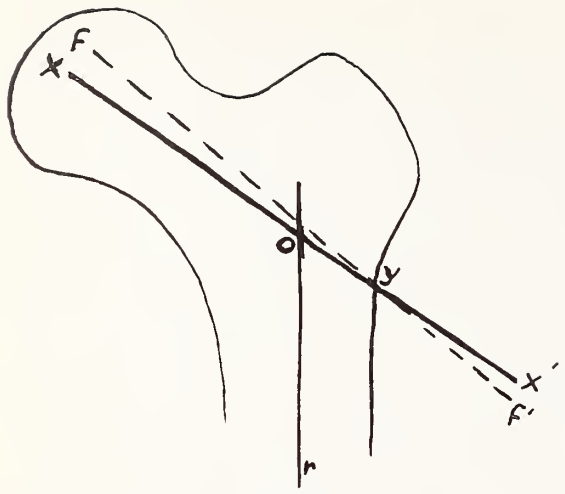


Figure 1.

as being the initial line of the angle and alignment determined from the medial point, any discrepancy between the true and assumed central axes is of far less importance. In Fig. 2 it can be seen that at the center of the head the two lines coincide and as they diverge laterally there is an accompanying increase in the diameter of the femoral neck which ensures ample room for the nail. It is quite feasible to determine alignment in this manner, for despite the possible range of variation the vast majority of hips will be found to conform closely to the accepted normal of 127 degrees. Furthermore, clinical experience has shown that it is not essential to insert the nail exactly along the central axis, and that it is equally permissible to start it as far distally as possible, directing it at an increased angle towards the center of the femoral head. Therefore, an angle of 130 degrees may be assumed as a starting point from which corrections are to be made, as a nail inserted on such a basis will be placed in a satisfactory position if the actual angle of inclination is between 123 and 130 degrees. Very few hips will be found to lie outside that range and any necessary corrections will be of a minor nature.

Although the length of the central axis of the neck may vary from 3″ to 4¼″, clinical experience again has shown that in most instances a nail of 3½″ to 4″ in length will be required. Of the 3¾″ average length, 2½″ will be placed medial to the long axis of the shaft, the remaining 1¼″ lying lateral. All these facts make it possible to represent the assumed 130 degree angle of inclination and 3¾″ length of nail by joining steel knitting-needles so that the stem, 8″ or 9″ in length, divides the shorter piece into two arms of unequal length, 2½″ and 1¼″, respectively. With this simple T-shaped device determination of alignment becomes a simple matter.

When the hip has been reduced and is held in the stipulated position, a positive Leadbetter's heel-palm test may be accepted as clinical evidence of the requisite satisfactory reduction. The T-shaped device is then placed on the anterior aspect of the thigh, the tip of the longer arm being at the medial landmark; the stem is brought into the long axis of the thigh and the correct clinical alignment has then been obtained. This may be confirmed roentgenographically or the nail may be inserted upon a clinical basis, holding it horizontally and directing it towards the center of the head under the arms of the T.

It is essential that the nail be started from the middle of the lateral surface of the shaft in order that it may penetrate the center of the cylinder formed by the femoral neck. Although this may be done in a freehand manner, any director such as that of the author's design which ensures that the nail will be placed at a fixed distance behind the anterior surface of the bone facilitates accurate placement of the nail along the central axis of the neck. During the actual insertion of the nail the physical characteristics of each type of bone encountered assist maintenance of the correct alignment. Cortical bone offers a marked resistance to the nail, and a sharp cracking sound is heard at each blow of the mallet; as the nail penetrates medullary bone it encounters little or no resistance and a high-pitched porous sound is heard. The reappearance of the signs indicating the presence of cortical bone warn the surgeon that the nail is off course, for it should meet no resistance until it encounters the head, when the dull thudding sound which is heard informs him that insertion of the nail is about complete. The sound and feel of each type of bone is so characteristic that they can be considered as being definite aids in the determination of alignment.

In emphasizing the value of these clinical facts and signs there is no intent to disparage the value

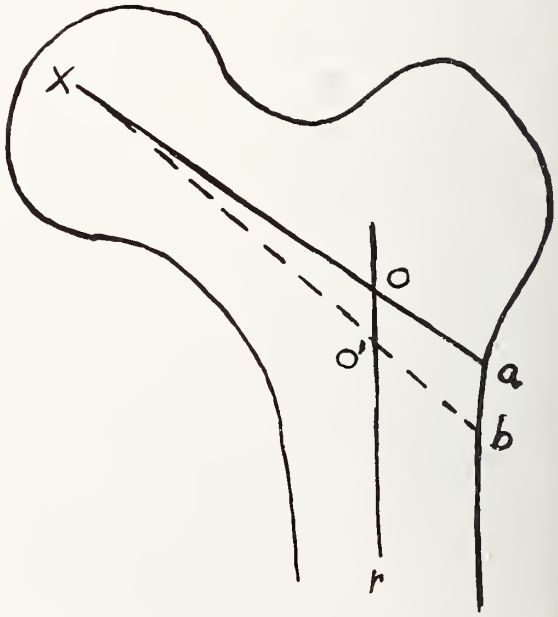


Figure 2.

of the roentgenographic aspects of the determination of alignment; however, undue reliance upon the roentgenograph increases the attendant difficulties and prolongs the operating time. Alignment should be determined clinically and confirmed roentgenographically. Nevertheless, if the initial roentgenogram, taken at the time of the patient's admission to the hospital, reveals both hips with the well hip held in internal rotation, a preliminary determination of alignment can be made from this so that the surgeon may know what to expect at time of operation. Unless a history is obtained which would indicate otherwise, it is most probable that prior to the accident the angle of inclination and length of the central axis was the same on both sides. As a satisfatcory reduction of the fracture implies an exact anatomic position or one of coxa valga, the measurements of the well hip may be taken as those which will be present following reduction of the fracture. True enough, correction is necessary to determine the actual length of the central axis; however, elaborate computations are unnecessary. As the degree of distortion is directly proportional to the distance between film and bone, if the patient is thin this will be approximately ¾"—1" if she is more obese. As a working rule, therefore, when the appropriate figure is subtracted from the measurement obtained from the roentgenogram, the remainder will be the actual length of the central axis.

Likewise, at times exact localization of the medial landmark may be difficult. In such instances a roentgenogram will reveal the T-shaped device superimposed upon the shadow of the bone, so that the need for correction may be seen and carried out by shifting the position of the indicator.

The technic for the determination of alignment which has been presented varies from the conventional technics in that the alignment is determined from the medial instead of the lateral end of the central axis. This seems to be a rational method, for the chances of placing the nail in a satisfactory position are increased, while the anatomical structure of the proximal portion of the femur is such that the ill effects of any possible error are minimized. The maximum benefit is obtained from the known clinical facts which are available to facilitate the process, and as the average alignment is employed as the starting point, any necessary corrections will be of a minor nature.

DIAGNOSIS AND TREATMENT OF CARDIAC EMERGENCIES

ROBERT EDWARD LYONS, JR., M.D.
BLOOMINGTON, INDIANA

In approaching the correct diagnosis in a cardiac emergency it is important first to determine the very earliest symptom—or if several marked the onset, which were the most noticeable—and to bring out certain points, e.g., whether there was pain (location and duration), palpitation, prostration, syncope, or dyspnea. Next, differentiate between peripheral circulatory failure and a true heart attack. Avoid the routine use of morphine or sodium amytal until you are certain what kind of pathology you are dealing with.

The purpose of this paper is to review briefly some of the more important symptoms, to correlate them with the more common cardiac emergencies, and to indicate treatment of the respective conditions.

I. *What may cause pain in the anterior thorax?*

1. Angina pectoris. Characteristics: usually a burning, constricting sensation under the upper half of the sternum, rarely to the side, with pain radiating down the left arm and associated with absolute quiet on the part of the sufferer. The angina pain usually appears during exertion, even with the effort of walking against a strong wind, and terminates within fifteen minutes. In this condition the patient is usually of middle- or past middle-age, of ashen color and presents an expression of fear. During the attack the blood pressure is at least slightly elevated, but the electrocardiogram and auscultation of the heart often disclose nothing helpful. The phenomenon is thought to be due to a myocardial anoxemia.

The treatment is 1/100 gr. nitroglycerin hypodermic tablet dissolved under the tongue, or inhalation of amyl nitrite. The former gives certain relief and is less expensive than the latter. Morphine should be avoided if at all possible. A drink of whisky or brandy may stop an attack. Nitroglycerin 1/100 gr. may be taken by the patient as a prophylactic against an attack of angina in anticipation of violent exertion that might precipitate one; however, it should not be taken at regular intervals nor used routinely as a prophylactic.

2. Acute coronary occlusion with myocardial infarction. The onset of the attack usually occurs while the victim is at rest and is characterized by an agonizing, crushing or squeezing sensation lasting often six to twelve hours. This is in contradistinction to angina pectoris in which the attack occurs during exercise and the duration is in terms of minutes rather than hours. If the pain lasts more than fifteen minutes it is not angina pectoris. Such terms as status anginosus and pseudo-angina should be avoided in view of present knowledge and more delicate methods of differential diagnosis. The severe and oppressive pain of an acute coro-

nary occlusion is located behind the sternum, across the chest between the nipples, or in the epigastrium, and may radiate into the neck and down the arms. In this state the patient, usually of middle- or past middle-age, has an ashen color, falling blood pressure, profuse perspiration, vomiting and sometimes abdominal distention with so much epigastric pain that an acute abdominal emergency might be thought of.

On examination of the heart a pericardial friction rub may be heard; the tones may be distant; new murmurs may be present. The earliest special examinations of diagnostic value are sedimentation rate (elevated), leukocyte count and electrocardiogram. The latter is of especially great value in the study of this condition because proved characteristic changes in the QRS and T pattern are seen. The EKG is generally positive within the first twenty-four hours, often immediately, but at times many days elapse before a diagnostic pattern occurs.

The underlying pathology is occlusion of one of the lumina of a coronary artery, or its branch, by a thrombus formation, thus causing an acute infarction of the myocardium. The importance of taking serial electrocardiograms is emphasized because of their value in observing changes or complications in this condition.

In the treatment of acute coronary occlusion, morphine sulphate, ¼ to ½ gr., should be given hypodermatically at once and repeated if necessary. Put the patient in the oxygen tent, keep at absolute bed rest and allow no bathroom privileges. Other therapy: If arrhythmia develops, use quinidine sulfate, 3 to 6 grs. every five hours; if cardiac decompensation occurs, digitalize; if the patient suddenly becomes pulseless and unconscious, with ventricular tachycardia proved absent through auscultation of the heart, give 0.5 to 1.0 cc. adrenalin 1/1000 subcutaneously. One imperative "don't" is the use of nitroglycerin in this condition; its use here may cause sudden death. If ventricular tachycardia develops (a forerunner of ventricular fibrillation and death) give quinine dihydrochloride, 7.5 gr., intramuscularly every few hours. The use of aminophylline in any method of administration is not advised. A minimum of eight weeks complete bed rest should be ordered.

3. Other conditions, cardiac in nature, which give rise to pain in the anterior thorax are:

(a) Paroxysmal tachycardia with "status anginosus." The discovery of the tachycardia makes the diagnosis, treatment and relief simple through use of quinidine sulfate in dosage as previously stated.

(b) Dissecting aortic aneurysm, as a result of splitting of media of the aorta into two layers by blood breaking through a crack in the intima due to atheroma. This condition, which is usually fatal and which gives a graver prognosis than the conditions presented in 1 and 2, is associated with hypertension, severe prostration, more marked and severe pain, especially in the back, than with angina pectoris, or acute coronary occlusion. Morphine is indicated for pain.

(c) Acute pericarditis, as cause of pain in the anterior thorax, is associated with pericardial friction rub, fever, leukocytosis, electrocardiographic changes, heart sounds when effusion occurs, x-ray findings, dyspnea and some pulsus paradoxus. Treatment: Codeine ¼ to ½ gr. every four hours, salicylates if of rheumatic etiology, ice cap to the precordium, oxygen and chemotherapy. Pericardial tap should not be done unless serious compression of the heart can be proved, because severe damage may be done to the heart wall in "dry taps."

Following are a few of the causes of chest pain that may be confused with that cardiac in origin: neurocirculatory asthenia, where the pain is located in the region of the cardiax apex, rarely extending in severity medial to the parasternal line, and associated with marked tenderness of the skin over the apex region; diaphragmatic hernia, arthritis of the spine, cholelithiasis, pleurisy, herpes zoster, anxiety neurosis with pain invariably to the left of the parasternal line, acute pyelitis and acute hemorrhage from peptic ulcer. Also, the pain accompanying pulmonary embolism must be differentiated. In this condition there may be pain in the chest, sudden circulatory collapse, dyspnea, thready rapid pulse and cyanosis, but the chest pain here is rarer than with coronary thrombosis although it may be entirely absent in each. Hemoptysis can not be considered in differentiating because it does not occur early in pulmonary embolism. Distention of the great vessels of the neck is more likely to occur in pulmonary embolism than in coronary occlusion. In the former, accentuation of the pulmonic second sound is often heard, also a systolic murmur may be recognized in this area. Finally, the electrocardiogram may be helpful in the differentiation.

II. *What conditions are associated with palpitation?*

1. Paroxysmal auricular tachycardia: begins and ends in one beat rate per minute, 150 to 250, and is perfectly regular. It may be treated and prevented with quinidine sulfate. Also pressure over the eye balls, on the carotid sinus, or in the epigastrium may stop the attack. Frequent, rapid swallowing or vomiting may stop it.

2. Paroxysmal auricular flutter: occasionally paroxysmal, but usually tends to be persistent once it starts. When seen untreated the rhythm is regular; ventricular rate is often 170, but the auricular rate is 340 due to a 2 to 1 AV block. Therapy: digitalis and quinidine sulfate.

3. Paroxysmal auricular fibrillation: characterized by a rapid, completely irregular heart action with pulse deficit and a difference in the number of beats heard at the apex and base when counted simultaneously. It is treated with quinidine if paroxysmal attack is demonstrated; if chronic, employ digitalis and avoid the use of quini-

dine because of danger of expelling emboli by change of the chronically fibrillating auricles into a contraction by which emboli may be squeezed out.

4. Paroxysmal ventricular tachycardia: associated with serious structural heart disease. In bedside differentiation from paroxysmal auricular tachycardia it is to be noted that the rhythm is not absolutely regular; there is a variation in the intensity of the first heart sound which may be reduplicated, muffled, or accentuated; in the jugular pulse there are fewer auricular waves observed than ventricular beats heard over the precordium; carotid sinus pressure does not affect it. The onset is usually sudden and the rate is 150 to 200 per minute. Treatment: quinidine sulfate.

5. Premature contractions: quinidine may be used if necessary, however medication is not always indicated. It is to be noted that digitalis may make them more frequent.

6. Palpitation may be of purely neurogenic origin.

III. *Certain types of dyspnea.*

1. Paroxysmal dyspnea, also called cardiac asthma and pulmonary edema, is a commonly seen cardiac emergency requiring immediate treatment. The condition is associated with left ventricular failure; it does not occur in mitral stenosis, except very occasionally with severe tachycardia. Therapy: morphine ¼ to ⅓ gr., with atropine sulfate 1/150 gr. given subcutaneously; oxygen should be employed; aminophylline 3¾ gr. may be used intravenously, but morphine is the drug of choice. However, pulmonary edema, when present for a long time, may not respond well to morphine because the respiratory center is nearly exhausted and morphine may aggravate the condition. Patients with pulmonary edema should be digitalized.

2. Cheyne-Stokes respiration: like a man recollecting himself, this is one of rhythmical apnea and hyperpnea. Use of the oxygen tent is helpful almost immediately; aminophylline 3¾ gr. given intravenously is almost a specific in reverting Cheyne-Stokes respiration to normal rhythm; chloral hydrate 15 to 30 gr. per rectum is also useful; coramine is not advised.

3. Dyspnea associated with generalized congestive heart failure is an indication for immediate digitalization, together with the use of oxygen. In this type of case the use of powerful diuretics, as mercupurin and salyrgan, before digitalization has been carried out is very dangerous because the diuretic, given to remove fluid which has accumulated in the cellular spaces and in large fluid reservoirs of the circulatory system, when effective throws this mass of fluid back into the blood stream, thereby multiplying the work of the heart which has already failed to such an extent that severe dilatation of the heart may occur suddenly and the patient literally drowns in his own body fluids.

IV. *Certain causes of syncope cardiovascular in origin.*

1. Adams-Stokes syndrome: characterized by sudden painless unconscious spells, with or without convulsions, and is due to a sudden failure of the ventricles to contract. The electrocardiogram shows the cardiac mechanism in this syndrome very well. Treatment: ephedrine sulfate ⅜ gr. three times per day by mouth, and subcutaneous administration of adrenalin 0.3 to 0.5 cc. 1/1000 every 3 or 4 hours if needed. Also, it is possible to use a preparation of adrenalin in oil which is slowly absorbed and may be given once every twenty-four hours in place of more frequent hypodermics of regular adrenalin.

2. Ventricular fibrillation will cause sudden syncope and often is the aftermath of ventricular tachycardia. The treatment of the latter with quinidine has been given under II.

3. Carotid sinus syncope, resulting from carotid sinus irritability, may be the cause of occasional sudden deaths during anesthesia when the anesthetist accidently presses on this sinus in trying to palpate the carotid pulse. It may be brought on in sensitive subjects by suddenly turning the head, or in maintaining certain positions of the head. In this state the blood pressure falls and the heart rate falls. Ephedrine sulfate 20 to 30 mg. two to four times daily may prevent the attacks.

ABSTRACT

WARN HIGHLY FATAL FUNGOUS DISEASE IS NOT CONFINED TO CALIFORNIA

Coccidioidal granuloma in human beings is a chronic, highly fatal fungous disease affecting the lungs, skin, lymph nodes, bones, meninges, the organs of the chest, and other body tissues. In a paper in *The Journal of the American Medical Association* for July 4 on the incidence of the disease in man and animals, George W. Stiles, M.D., and Charles L. Davis, D.V.M., Denver, warn that, while the disease "has been considered peculiar to California, its appearance both in man and in animals from other localities indicates that the malady is either spreading or has not heretofore been recognized. Coincident with this disease in man, an increase is noted in the number of cases occurring in lower animals. In regions in which man has acquired infection, cattle, dogs, sheep, wild rodents and possibly other animals may harbor the fungus.

"Coccidioidal granuloma appears to be acquired by inhaling spores of the fungus, by cutaneous infection through wounds or rarely through the gastrointestinal route."

PREGNANCY COMPLICATED BY PREECLAMPTIC TOXEMIA AND PERNICIOUS ANEMIA

GEORGE PROCOPIE, M.D.
CHARLES ARMINGTON, M.D.
ANDERSON, INDIANA

The incidence of pernicious anemia and pregnancy is not great in the European countries, and the disease is not so common in the United States of America. According to the studies and observations of Lucy Willis[1] in India and Francis Bennett[2] in New Zealand its percentage seems to be the greatest in India and some of the tropical islands.

Hyperchromic macrocytic anemia may precede or complicate an existing pregnancy or puerperium. The relationship of this type of anemia to the gravidity is explained by the numerous changes which occur in this special physiologic condition. It is known that throughout this gravidity stage there is a continuous strain and an increased demand for hemopoietic principles, as well as an incessant heavy drain upon the maternal stored supplies for fetal hemopoiesis.

Also during pregnancy there is in some cases a prolonged defective diet or a deficient gastrointestinal absorption which would render the antianemic factors either qualitatively poor or quantitatively insufficient. In other instances there is an inability of the pregnant woman's liver to store these principles, or a failure of these principles to be utilized properly by the hemopoietic tissues. Besides the above mentioned causes the exhaustion or insufficiency of intrinsic factors must also be looked for in the depression of gastric function induced by pregnancy itself, as indicated by M. B. Strauss and W. B. Castle.[3]

The prognosis of pregnancy preceded or complicated by hyperchromic macrocytic anemia is brighter since the introduction of antianemic principles present in the liver extract. Today the symptoms of true pernicious anemia are well controlled by the dramatic beneficial effects of liver extract therapy and the pregnancy can reach its full term undisturbed, thus ending in a normal delivery. These facts have been described vividly by A. Eyding,[4] V. Aalkjar,[5] and F. Pasquini[6] in their numerous cases. Eyding also states that interruption of gravidity is not necessary as long as the condition can be managed in this manner. If it cannot be controlled this way, do not wait too long, thus reducing the slightest chances of the mother to live. The prognosis of pregnancy is bad in cases of achrestic anemia, the blood picture of which is identical to that of pernicious anemia and that which fails to respond to liver extract therapy. The mortality rate for untreated cases runs between 90 and 95 per cent, whereas those adequately treated show a mortality rate as low as 8 to 9 per cent. Recurrences in subsequent pregnancies are frequent and very severe in character. If the fetus survives until full term the prognosis is good and the infant's health and blood picture is normal.

The following case illustrates an interesting combination of factors and results, such as pregnancy complicated by preeclamptic toxemic condition and pernicious anemia, and results: a prompt effective response of the pernicious anemic disorders to liver extract therapy; a regaining power of the gastric glands to secrete hydrochloric acid, pepsin, in all probability the intrinsic Castle's principle, and probably an indirect action of the liver extract upon the thyroid gland, thus acting upon the basal metabolism which in this case descended to normal under the influence of liver therapy. Boccuzzi and W. Paolino[7] showed this action of the liver extract upon the basal metabolism in a large number of cases.

Mrs. P. F., an American housewife, aged 21, hospitalized on February 4, 1942, was gravida 2, para 0, with parturition due February 8, 1942. The patient had hyperemesis gravidarum between the second and third month of pregnancy. Beginning at the end of the seventh month she noticed a heaviness and formications in her limbs with increasing weakness and poor appetite. About two weeks previous to parturition she had begun to have a severe headache, with a blood pressure systolic 170 and diastolic 112, and almost constant nausea, vomiting, loss of appetite, and obstinate constipation. The formications and weakness in the limbs became so pronounced that the patient could not walk. During the last four months the food intake was reduced because of capricious or poor appetite. The skin had gradually become pale, and she began feeling drowsy. The temperature was above nor-

[1] Willis, Lucy: Use of Marmite in Tropical Macrocytic Anemia, including Pernicious Anemia of Pregnancy. *India M. Goz.* **68**:133, (March) 1933.

[2] Bennett, Francis: The Pernicious Anemia of Pregnancy. *New Zealand, M. J.* **34**:330 (October) 1935.

[3] Strauss, M.B. and Castle, W.B.: Relationship of Gastric Secretory Defects and Dietary Deficncies to the Hyperchromic and Macrocytic Anemia of Pregnancy, and the Treatment of These Conditions. *Am. J. Sc.* **185**:539, (April) 1933.

[4] A. Eyding: Pernicious Anemia and Pregnancy. *Munchener Medizinesche Wochenschrift,* Munich. (August 18,) 1933.

[5] V. Aalkjar: Pernicious Anemia like of Pregnancy—*Hospitalstidende,* Copenhagen, (Sept.) 1931.

[6] Pasquini, F.: Eighteen Cases of Pernicious Anemia of Pregnancy Observed in the Obstetric Clinic at Rome—*Atti. Soc. ital di obstet. e ginec.* **29**:720, 1932.

[7] Boccuzzi and W. Paolino: Action of Liver Extract on Basal Metabolism in Pernicious Anemia, *Archiva Pre La Scienze,* Mediche Turine, (June) 1940.

mal and was irregular. The urine was normal, but the stools were brown in color.

The patient had a miscarriage in 1941, and also an appendectomy in the same year. During childhood she had tonsillitis, chickenpox and repeated colds. There was no history of tuberculosis, malaria, syphilis, intestinal parasites, rat-bite or exposure to intestinal poisons. During the pregnancy she did not have any contagious sickness. She did not receive any medication orally or by injections. Her family history was entirely negative.

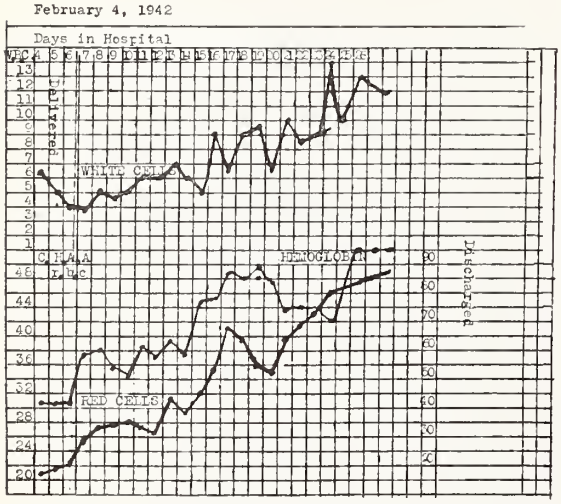
On examination the temperature was 98.5 F., the pulse rate was 92, the respiratory rate 25, and the blood pressure systolic was 176, diastolic 112. The patient's weight was 160 pounds. The skin was pale and dry but she looked well nourished. The mucous membranes of the eyes, lips and buccopharynx were white and pale. Examination of the eyes did not show nystagmus, strabismus or ptosis. The fundi eye examination revealed pallor of nasal, retinal fields. Eye fields' examination did not show any pathological changes. The tongue was normal as to color and there was no sign of glossitis or other pathology. The tonsils were atrophic. The teeth were in good condition. The thyroid gland was not enlarged. The parotids, submaxillary glands and cervical lymph nodes were of normal size. The chest was normally developed. The breasts were full, tender, spheric, and the nipples were everted. The lungs were clear and the x-ray did not show any pathologic changes. No heart enlargement was evident, whereas the rhythm was regular with a pulse rate of 92, and the heart beats were of good quality. There was a transient systolic murmur midsternum, disappearing with the exercise and the position of the body. The abdomen was distended by a tumor of pregnancy about term; the fundus of the tumor was 5 cm. below the xiphoid process. The movements of the small parts were very active. The fetal heart-tone rate was 160 and was located in the right lower quadrant; the position and presentation was R.O.T., the head was floating and there was no show of blood. There was no dystocia, no pelvic deformity, and the pelvic measurements were normal. The liver and the spleen were neither enlarged nor tender on palpation. There was neither edema of the abdominal wall nor ascites. Neurologic examination did not reveal any motor-sensoral or cranial nerve disturbances. The patient complained of throbbing, nauseating headache with vertigo, ringing in the ears and decreased visual and auditory acuity. A urine specimen was collected by catheterization and the miscroscopic examination showed a clear urine, an acid reaction with a specific gravity of 1.008. There were heavy traces of albumin, but no sugar or bile. Acetone and diacetic acid were absent. Microscopic examination of centrifuged urine revealed two granular casts and one white blood cell per high power field, plus a few epithelial cells. Blood picture showed: red cells 2,120,000, hemoglobin 52, white cells 6,100, color index 1.23, platelets number 21,360 with 65 per cent polymorphonuclears and 35 per cent lymphocytes. Also, a macrocytosis with a few monoblasts were present. The polychromatophilia and a moderate anisocytosis and poikilocytosis were present. The blood smear did not show any parasites. The Wassermann and Kahn were reported negative. The stools were brown in color and occult blood, ova and parasites were not seen. The chemistry of a fasting gastric juice specimen revealed free hydrochloric acid absent with a total acidity of four degrees. After the patient had taken 50 cc. of 7 per cent alcohol, the analysis showed free hydrochloric acid absent with a total acidity of 6.2 degrees. The tests were negative for lactic acid, micro-organisms and blood.

On the next day the membranes ruptured spontaneously and the patient went into labor. Because of the weak uterine contractions, slow progress, and a very exhausted mother, low forceps were applied, thus delivering a female infant weighing five pounds. During the last part of the labor and delivery, ether inhalations were administered intermittently. There was a small amount of blood loss during the delivery.

On the first postpartum day the patient's general condition was no better than before admission. She appeared completely exhausted and apathetic. The temperature rose to 101 degrees F. The pulse rate was 100, the respiratory rate 35. The lungs were clear. The heart beats were of good quality. The abdomen was soft, flat and painless. The uterus was firm and the lochial discharge was pink. Throughout this time the patient had received 2 cc. of concentrated liver extract twice daily, and 20 drops from a 10 per cent diluted solution of hydrochloric acid three times a day after meals. On the third postpartum day a transfusion of 500 cc. of citrated blood was given, but with slight results. The blood picture was slightly increased. The microscopic examination of a catheterized urine specimen showed an acid reaction with a specific gravity of 1.005. There were heavy traces of albumin, but the bile, acetone and sugar were absent. The basal metabolic rate was plus 19. On the fourth postpartum day another transfusion of 500 cc. of citrated blood was administered, but in spite of all these measures the headache, nausea, drowsiness and distaste for any kind of food were unabated. The blood pressure showed a slight decrease, systolic being 150 and diastolic 110. The urinary findings consisted of traces of albumin only. Nitrogen urea was 16. The blood picture revealed: red cells 2,520,000, white cells 2,900, hemoglobin 58 per cent, color index 1.16, platelets 88,360, with 52 per cent polymorphonuclear leukocytes, 37 lymphocytes and 2 eosinophiles. On the twelfth postpartum day the patient began to feel much better; she was more alert, less drowsy, the appetite improved, but the headache still persisted. The blood pressure decreased to systolic 140 and diastolic 96. The temperature was 101 degrees F. The blood

examination revealed an increase in the number of red cells to 3,550,000, white cells were 4,000, with hemoglobin content of 78 per cent, the color index was 1.11 and the platelets were 85,000. The basal metabolic rate was plus 15. On the fourteenth postpartum day the patient was feeling better. The blood pressure systolic was 120 and diastolic 80. A catheterized specimen examination was negative for sugar and albumin. Blood examination revealed a slight increase in red and white cells. There was a slight macrocytosis, with anisocytosis and poikilocytosis. The basal metabolic rate was plus 14. On the twentieth day of hospitalization the patient's general condition appeared satisfactory. The appetite and food intake were good. The muscular power was greatly recuperated and the patient was able to stand and to walk. The visual and auditory acuity showed no improvement. The skin was still pale. The blood examination at this time showed red cells 4,050,000, white cells 7,300, with a hemoglobin content of 80 per cent. The gastric juice analysis of a fasting specimen revealed free hydrochloric acid absent with a total acidity of 8 degrees. Following ingestion of 50 cc. of 7 per cent alcohol the chemistry showed free hydrochloric acid, 4 per cent, while the total acidity was 12 per cent. The patient's condition was improving with every passing day. She made a good recovery and was discharged from the hospital on February 26, 1942. The infant weighed six pounds four ounces on discharge. A blood count made on the third day after birth showed the child to have a normal red and white count with a hemoglobin content of 90 per cent. Another blood count made four weeks later was normal.

The medication was discontinued after the patient left the hospital. She was seen thereafter, only once weekly, and was seen the last time on May 15, 1942. The patient was maintaining an excellent status of health with a satisfactory appetite. Her last blood examination made in May showed red cells 3,740,000, white cells 5,500, with 80 per cent hemoglobin content and a 123,420 platelets count. The chemistry of a fasting gastric juice showed free hydrochloric acid 9.8 degrees with a total acidity of 21 degrees. After the patient had taken 50 cc. of 7 per cent alcohol the chemistry revealed free hydrochloric acid, 22.5 degrees, while the total acidity was 32 degrees. The basal metabolic rate was minus 11.



Erythrocytes, leukocytes, and hemoglobin throughout the period of observation. The upper curve, leukocytes, thousand per cubic millimeter; lower curve, erythrocytes, millions per cubic millimeter; middle curve, hemoglobin per cent; A, transfusion, 500 cc.; C, liver extract; H, hydrochloric acid.

SUMMARY

(1) Throughout the pregnancy stage in the present case there was associated with the gastrointestinal disorders a defective diet and an insufficient food intake, which subsequently depressed the gastric function and impaired the stomach glandular secretion.

(2) Superadded to pernicious anemic disorders, there were findings of preeclamptic toxemic condition which made the pregnancy prognosis more severe, but once the diagnosis was made adequate treatment and a close watchful expectancy followed.

(3) The effects of antianemic principles contained in the liver extract were more than satisfactory upon the hemopoietic system, as well as on the gastric function. Daily blood smear examinations showed an oscillatory increase in the platelets number until they reached the highest level, and then returned gradually to about normal for a period of several weeks. It seems that the highest peak was reached several days after the erythrocytes climbed to a maximum percentage. Parallel with them and the red cells, the hemoglobin content and the white cells rose also, while the color index returned to normal.

(4) The depressed gastric function response to the liver extract therapy surpassed the expected results, because there was not only simple improvement of the appetite and digestion, as there should be, but also the function of gastric glands to secrete hydrochloric acid and pepsin was restored, and in all probability also the intrinsic Castle's factor.

(5) Another effect of the liver extract therapy was observed on the basal metabolic rate, which showed a tendency to return to normal; the influence of the liver extract on pernicious anemia and frequent basal metabolism changes on one hand, and the relationship between the thyroid, hemopoiesis and the basal metabolism, on the other hand, had suggested the presence of a hepatothyroid factor stored into the liver with the antianemic principles. This factor would exert an indirect action on the consumption of oxygen through the thyroid gland, thus acting on the general metabolism.

Buy
War Bonds

Ninety-Third

Annual Session

Indiana State Medical Association

French Lick, Indiana

September 29, 30 and October 1, 1942

Headquarters—French Lick Springs Hotel

Complete Program on following pages



MAYNARD A. AUSTIN, M.D.

ANDERSON

President

Indiana State Medical Association

1942



C. H. McCASKEY
President-Elect
Indianapolis



A. F. WEYERBACHER
Treasurer
Indianapolis



F. T. ROMBERGER
Chairman of Council
Lafayette



THOMAS A. HENDRICKS
Executive Secretary and
Managing Editor of
THE JOURNAL
Indianapolis



CLEON A. NAFE
Chairman
Executive Committee
Indianapolis



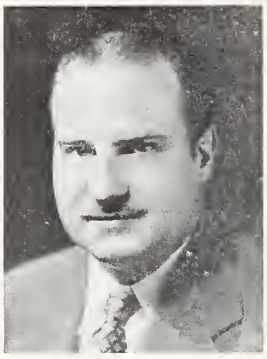
E. O. ASHER
Executive Committee
New Augusta



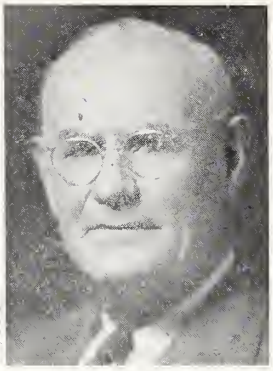
GEORGE R. DILLINGER
Chairman
Convention Arrangements
Committee
French Lick



E. M. SHANKLIN
Editor THE JOURNAL
Hammond



ARNOLD DUEMLING
Chairman
Section on Surgery
Fort Wayne



JAMES E. McMEEL
Chairman
Section on Medicine
South Bend



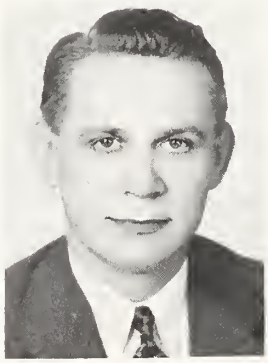
E. O. ALVIS
Chairman
Section on Ophthalmology
and Otolaryngology
Indianapolis



ERNEST P. BUCKLEY
Chairman
Section on Anesthesia
Jeffersonville



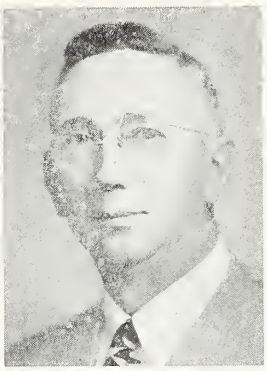
W. D. INLOW
Secretary
Section on Surgery
Shelbyville



GEORGE WILLISON
Secretary
Section on Medicine
Evansville



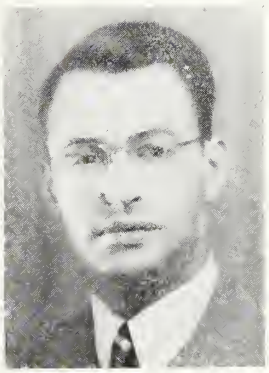
BERNARD RAVDIN
Secretary
Section on Ophthalmology
and Otolaryngology
Evansville



JOHN M. WHITEHEAD
Secretary
Section on Anesthesia
Indianapolis



JAMES F. BALCH
Editorial Board
Indianapolis



E. L. VAN BUSKIRK
Editorial Board
Lafayette



HERMAN M. BAKER
Editorial Board
Evansville



L. G. MONTGOMERY
Editorial Board
Muncie



JAMES O. RITCHEY
Editorial Board
Indianapolis



ROBERT V. HOFFMAN
Editorial Board
South Bend

The French Lick Convention



Again the members of the Indiana State Medical Association salute French Lick, where they will convene for their ninety-third annual session on September 29, 30 and October 1, 1942. French Lick, in turn, offers its hotel and renowned health resort facilities to its convention guests.

As a convention center French Lick has everything to offer. One wing of the hotel is set aside exclusively for convention purposes, with all facilities housed under one roof. All diversions are on the hotel grounds, where they can be easily included in convention programs without interfering with business sessions. Whatever you seek—rest, relaxation, or recreation—you will find the atmosphere restful and recreational facilities that afford all that may be desired.

French Lick is surrounded by 4,000 acres of wooded hills and gardened landscape. Here you may indulge in an exciting variety of sports and an enjoyable program of recreation and entertainment. It offers such a variety of interesting things-to-see and things-to-do that guests may be energetic or lethargic, when and as they please, with every convenience at their disposal: the services of a barber shop, beauty salon, smart gift and apparel shops, laundry and valet service, banking facilities, stenographic service, and floral shop—all attended by a skillfully trained staff. Delightful shaded gardens and sunbathed lawns are havens for lounging, and beautiful paths through the woods adjacent to the hotel are ideal for short strolls or long walks. Fine foods are also served at the French Lick Springs Hotel.

French Lick Springs is world famous for its spa. It has been called America's "Carlsbad." It possesses some of the most renowned mineral springs and also maintains an excellent medical department and scientific laboratory for supervising its baths and springs, with a staff of physicians and trained nurses in charge.

The sports seeker will find a natural paradise for outdoor activities. Golf is one of its greatest attractions for sportsmen, with two eighteen-hole courses. The Hill Course is built on the natural rolling terrain of the French Lick estate, with skill-testing hazards that keep player interest at high pitch. This course is two miles from the hotel and transportation is provided. The Valley Course is located one hundred yards from the hotel, for those who want an interesting but not too strenuous game. Both courses have club houses, which are also used by spectators. There is also a Pitch and Putt Course for practice.

Those who like to test their marksmanship will enjoy skeet shooting. The hill-top Skeet Club is equipped with modern targets for both skeet and trap shooting.

Also the sports lover finds several others. Horseback riding is a top diversion. Miles of inviting bridle paths, far from traffic, wind through the woods and cross-country. Archery, badminton and tennis are among the other recreations offered. Besides the indoor pools in the bath departments, there is a beautiful outdoor swimming pool.

French Lick is easily accessible by rail, air, or motor. By motor the trip is inspiring as you wend your way through the majestic wooded hills of Southern Indiana. COME TO FRENCH LICK FOR THE ANNUAL CONVENTION!



Official Program

93rd Annual Session

INDIANA STATE MEDICAL ASSOCIATION

FRENCH LICK, INDIANA

September 29, 30 and October 1, 1942

Monday, September 28, 1942

6:30 p.m. Executive Committee dinner and meeting, Parlor B, main floor, French Lick Springs Hotel.

Tuesday, September 29, 1942

Morning

8:00 a.m. Registration starts, north porch, off main lobby, French Lick Springs Hotel.

8:00 a.m. Opening of commercial exhibit, main lobby and north porch, French Lick Springs Hotel.

10:00 a.m. Meeting of state health officers and chiefs of Emergency Medical Service (See program on page 518.)

Afternoon

12:30 p.m. Council meeting, Blue Room, French Lick Springs Hotel.

12:30 p.m. Luncheon meeting of members of the state and county Anti-Tuberculosis Committees, Bamboo Room, French Lick Springs Hotel. Program on Chest Diseases sponsored by the Indiana Chapter of American College of Chest Physicians.

4:00 p.m. Meeting of House of Delegates, North Convention Hall, French Lick Springs Hotel.

Evening

6:30 p.m. Annual dinner meeting for women physicians, Blue Room, French Lick Springs Hotel.

6:30 p.m. Supper, smoker and stag party, Main Convention Hall, French Lick Springs Hotel.

Wednesday, September 30, 1942

Morning

7:30 a.m. Breakfast meeting of members of the state and county Conservation of Vision Committees, Blue Room, French Lick Springs Hotel.

7:30 a.m. Breakfast meeting of members of the state and county Committees on Industrial Health, Bamboo Room, French Lick Springs Hotel.
Speaker: Carl M. Peterson, M.D., Chicago, Secretary, Council on Industrial Health, American Medical Association.

8:00 a.m. Registration continues, north porch, off main lobby, French Lick Springs Hotel.

8:00 a.m. Commercial exhibits, main lobby and north porch, French Lick Springs Hotel.

GENERAL MEETING

(Main Convention Hall, French Lick Springs Hotel)

9:00 a.m. Call to order by M. A. Austin, M.D., Anderson, president, Indiana State Medical Association.

9:10 a.m. Greetings and introduction of John K. Spears, M.D., Paoli, president of Orange County Medical Society, and of H. L. Miller, M.D., West Baden, president of the Third District Medical Society, by George Dillinger, M.D., chairman of Committee on Convention Arrangements.
Official welcome by Thomas Taggart.

9:15 a.m. President's address, M. A. Austin, M.D., Anderson.

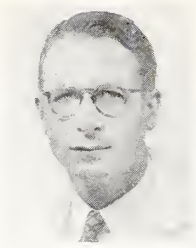
9:40 a.m. Miss Lillian Adams, Nurse Recruiting Secretary, American Red Cross, Indianapolis. "Military Need for Nurses."

Scientific Program

9:45 a.m. **NORMAN H. PLUMMER, M.D., New York.**
Subject: "*Treatment of Pneumonia.*"

10:15 a.m. **HARRY EDGAR MOCK, M.D., Associate Professor of Surgery, Northwestern University Medical School, Chicago.**
Subject: "*Skull Fractures and Brain Injuries.*" (Lantern slides.)

10:45 a.m. **Speaker on "War Medicine" to be announced. (Attempt is being made to obtain a speaker who has just returned from England with first hand information on medical war problems.)**



Norman Plummer, M.D.
New York City



Harry E. Mock, M.D.
Associate Professor of Surgery, Northwestern University Medical School, Chicago

11:15 a.m. R. ARNOLD GRISWOLD, M.D., Professor of Surgery, University of Louisville School of Medicine, Louisville, Kentucky.
Subject: "*The Treatment of the Wound in Compound Fractures.*" (Lantern slides.)

Noon

12:15 p.m. Fraternity and class luncheons and get-togethers.

12:15 p.m. Luncheon Meeting, Procurement and Assignment Service county chairmen, Bamboo Room, French Lick Springs Hotel.
Speaker: COLONEL ROBINSON HITCHCOCK, State Director, Selective Service System.

SECTION MEETINGS

September 30, 1942

MEDICAL SECTION

Chairman, James E. McMeel, M.D., South Bend
Vice-chairman, Don E. Wood, M.D., Indianapolis
Secretary, George Willison, M.D., Evansville
(Main Convention Hall)

Afternoon

2:00 p.m. NORMAN H. PLUMMER, M.D., New York.
Subject: "*Virus Pneumonia.*"

2:30 p.m. Symposium on the sulfonamides.
Two Speakers

3:30 p.m. Election of Section officers.

3:40 p.m. Quiz section—open for any question that anyone wants to ask from the floor.

SURGICAL SECTION

Chairman, A. H. Duemling, M.D., Fort Wayne
Vice-chairman, V. Earle Wiseman, M.D., Greencastle
Secretary, W. D. Inlow, M.D., Shelbyville
(North Convention Hall)

Afternoon

2:00 p.m. KARL M. KOONS, M.D., Indianapolis.
Subject: "*Surgical Emergencies Due to Small Bowel Lesions.*"

2:30 p.m. J. F. MAURER, M.D., Brazil.
Subject: "*Injuries to the Peripheral Nervous System.*"

3:00 p.m. EDWARD T. STAHL, M.D., Lafayette.
Subject: "*Internal Fixation of Fractures.*"

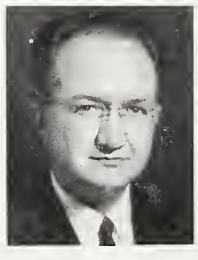
3:30 p.m. N. K. FORSTER, M.D., Hammond.
Subject: "*Wartime Industrial Surgery.*"

4:00 p.m. LESTER R. DRAGSTEDT, M.D., Professor of Surgery, University of Chicago, The School of Medicine, Chicago.
Subject: "Some Physiological Principles in Surgery of the Pancreas."

4:30 p.m. Election of Section officers.



R. Arnold Griswold, M.D.
Professor of Surgery, University of Louisville School of Medicine, Louisville



Lester R. Dragstedt, M.D.
Professor of Surgery, University of Chicago, The School of Medicine, Chicago



Albert Carl Furstenberg, M.D.
Dean and Professor of Otolaryngology, University of Michigan Medical School, Ann Arbor



James E. Paullin, M.D.
President-Elect, American Medical Association, Atlanta (Banquet speaker)

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman, E. O. Alvis, M.D., Indianapolis
Vice-chairman, E. L. VanBuskirk, M.D., Lafayette
Secretary, Bernard Ravdin, M.D., Evansville

(South Foyer of the Convention Hall)

Afternoon

2:00 p.m. BERNARD J. LARKIN, M.D., Indianapolis.
Subject: "*Ocular Manifestations of Multiple Sclerosis.*"

2:20 p.m. Discussion by James V. Cassady, M.D., South Bend.

2:30 p.m. HUGH KUHN, M.D., Hammond.
Subject: "*Allergy in Relation to Otology.*"

2:50 p.m. Discussion by Kenneth L. Craft, M.D., Indianapolis.

3:00 p.m. BERT E. ELLIS, M.D., Indianapolis.
Subject: "*Case Report of a Rare Intranasal Tumor.*"

3:20 p.m. Discussion by Carl H. McCaskey, M.D., Indianapolis.

3:30 p.m. C. W. RUTHERFORD, M.D., Indianapolis.
Subject: "*Chemotherapy in Ophthalmology.*"

3 50 p.m. Discussion by E. L. VanBuskirk, M.D., Lafayette.

4:00 p.m. ALBERT C. FURSTENBERG, M.D., Dean and Professor of Otolaryngology, University of Michigan, Ann Arbor.
Subject: "*Diseases of the Salivary Glands.*"

5:00 p.m. Election of Section officers.

SECTION ON ANESTHESIA

Chairman, E. P. Buckley, M.D., Jeffersonville
Vice-chairman, Frank W. Ratcliff, M.D., Lafayette
Secretary, J. M. Whitehead, M.D., Indianapolis

(Game Room, Mezzanine Floor)

Afternoon

2:00 p.m. CLAIRMONT W. SIEKERMAN, M.D., Indianapolis.
Subject: "*Adaptability of Various Anesthetic Agents to Certain Types of Operations.*"

2:30 p.m. R. N. HARGER, Ph.D., Indianapolis.
Subject: "*Ether Concentration in Blood and Breath of Patients during Surgical Anesthesia.*"

3:00 p.m. FLOYD T. ROMBERGER, M.D., Lafayette.
Subject: "*What Is Good Anesthesia?*"

3:30 p.m. Round table discussion of papers led by C. N. Combs, M.D., Terre Haute.

4:30 p.m. Election of Section officers.



Stephen Badanish
President, Indiana Pharmaceutical Association, Gary



Arlie R. Barnes, M.D.
Professor of Medicine, University of Minnesota Graduate School, Rochester

Annual Banquet

Wednesday, September 30, 1942

7:00 p.m. Annual Banquet, main dining room, French Lick Springs Hotel.

Presiding officer, M. A. Austin, M.D., president, Indiana State Medical Association.

Presentation of certificate of merit to A. M. Mitchell, M.D., president, 1941, Indiana State Medical Association, by M. A. Austin, M.D.

Speaker: JAMES E. PAULLIN, M.D., Atlanta, Georgia, president-elect, American Medical Association.

Subject: "*American Medicine in the Present Emergency.*"

Speaker: FELIX MORLEY, Haverford, Pennsylvania, president, Haverford College; formerly editor, *Washington Post;* Pulitzer Prize Winner for Editorial Writing; trustee, National Foundation for Education.

Subject: "*What Are Our Objectives?*"

Thursday, October 1, 1942

7:00 a.m. House of Delegates breakfast meeting. West Room, French Lick Springs Hotel. Annual election of officers and selection of convention city for 1943.

Meeting of Council immediately following adjournment of House of Delegates.

GENERAL MEETING

Main Convention Hall, French Lick Springs Hotel

9:30 a.m. STEPHEN BADANISH, President, Indiana Pharmaceutical Association, Gary.
Subject: "*Medicine and Pharmacy—Shoulder to Shoulder.*"

10:00 a.m. LESTER R. DRAGSTEDT, M.D., Professor of Surgery, University of Chicago, The School of Medicine, Chicago.
Subject: "*The Etiology and Surgical Treatment of Gastro-duodenal Ulcer.*"

10:30 a.m. ALBERT C. FURSTENBERG, M.D., Dean and Professor of Otolaryngology, University of Michigan Medical School, Ann Arbor.
Subject: "*Acute Infections of the Mouth, Pharynx and Cervical Region.*"

11:00 a.m. ARLIE R. BARNES, M.D., Professor of Medicine, University of Minnesota Graduate School, Rochester, Minnesota.
Subject: "*Heart Disease.*"

Golf Tournament

Because of the many inquiries received as to "what will we do about golf," the matter of having a golf tournament during the convention at French Lick was reconsidered at the August meeting of the Executive Committee. It was decided that some type of tournament shall be held on the lower course Tuesday, September 29, 1942; eighteen holes, both medal and gross play.

Prizes for this tournament will be in the form of Defense Bonds and Stamps, and the entry fee will be three dollars.

Below is a blank for you to fill out prior to the meeting and mail to the headquarters' office.

(Please complete, clip out and mail)

TO: Indiana State Medical Association,
1021 Hume-Mansur Building,
Indianapolis, Indiana.

I will ..... or will not ..... play in the golf tournament.

County ..... Handicap ..... Home Golf Club .....

Name .....

Address .....

Formal Garden



French Lick Springs

Women's Entertainment

Tuesday, September 29, 1942

9:00 a.m. Registration, north porch, off main lobby, French Lick Springs Hotel.

3:00 p.m. Informal tea, honoring Mrs. Frank N. Haggard, national president, and Mrs. Ernest O. Nay, state president. (Garden)

4:00 p.m. Board meeting, Woman's Auxiliary to the Indiana State Medical Association, Radio room, mezzanine floor, French Lick Springs Hotel.

6:45 p.m. Meeting of past state presidents, Radio room, French Lick Springs Hotel.

7:00 p.m. Dinner, honoring Mrs. Frank N. Haggard, national president, main dining room, French Lick Springs Hotel. Speaker: Mrs. Frank N. Haggard, San Antonio, Texas.

Wednesday, September 30, 1942

8:15 a.m. Annual Auxiliary breakfast and business meeting, west dining room, French Lick Springs Hotel.

ORDER OF BUSINESS (Time will be called)

9:00 (1 min.) *Call to order*—Mrs. Ernest O. Nay, Terre Haute, president, Woman's Auxiliary to the Indiana State Medical Association.

9:01 (3 min.) *Salute to the flag.*

9:04 (3 min.) *Address of welcome*—Mrs. R. E. Baker, Orleans.

9:07 (2 min.) *Response*—Mrs. M. B. VanCleave, Terre Haute.

9:09 (5 Min.) *In Memoriam*—Mrs. H. A. Ray, Fort Wayne.

9:14 (6 min.) *Roll Call*—Mrs. Irvin Scott, Sullivan, Credentials Chairman.

9:20 (1 min.) *Presenting agenda for approval*—Mrs. E. N. Mendenhall, Fort Wayne.

9:21 (5 min.) *President's Message*—Mrs. Ernest O. Nay.

9:26 (10 min.) *Reports of elected officers:*
Recording secretary, Mrs. William Wright, Fort Wayne.
Corresponding secretary, Mrs. C. N. Combs, Terre Haute.
Treasurer, Mrs. T. R. Hayes, Muncie.

9:36 (15 min.) *Reports of committee chairmen:*
Archives, Mrs. E. M. Shanklin, Hammond.
Exhibits, Mrs. F. S. Cuthbert, Kokomo.
Auditor, Mrs. F. M. Gastineau, Indianapolis.
Hygeia, Mrs. J. W. Baxter, Jr., New Albany.
Legislative, Mrs. M. B. VanCleave, Terre Haute.
Organization, Mrs. Fred B. Wishard, Pendleton.
Press and Publicity, Mrs. E. B. Lamb, Indianapolis.
Public Relations, Mrs. George Bowman, Indianapolis.
Pioneer Memorial, Mrs. O. G. Pfaff, Indianapolis.
Bulletin, Mrs. W. E. Tinney, Indianapolis.

9:51 (1 min.) *Report of Councilor*—Mrs. C. L. Bock, Indianapolis.

9:52 (10 min.) *Report of Historian*—Mrs. U. G. Poland, Muncie.

10:02 (1 min.) *Report of Parliamentarian*—Mrs. C. F. Voyles, Indianapolis.

10:03 (30 min.) *Address*—"Civilian Participation in Our War Health Program," John W. Ferree, M.D., Indianapolis, secretary, Indiana State Board of Health.

10:33 (25 min.) *Introduction of County Presidents*—Mrs. F. B. Wishard.

10:58 (10 min.) *Report of National Convention*—Mrs. George Dillinger, French Lick.

11:08 (2 min.) *Unfinished Business.*

11:10 (15 min.) *New Business.*
Present resolutions—Mrs. C. F. Voyles.
Budget Committee—Mrs. F. M. Gastineau.

11:25 (3 min.) *Report of Nominating Committee*—Mrs. W. E. Tinney.

11:28 (5 min.) *Election of Officers.*

11:33 (10 min.) *Installation of Officers*—Mrs. C. F. Voyles.

11:43 *President's Response.*
New Business.
Adjournment.
Post-convention Board meeting immediately following adjournment.

1:00 p.m. Luncheon. (Country Club)

Announcements

SPECIAL EXHIBITS

Industrial Health Exhibit—Carl M. Peterson, M.D., Secretary, Council on Industrial Health, American Medical Association.

Exhibit of the Floyd County Emergency Medical Services—A. P. HAUSS, M.D., New Albany
Chief, Floyd County Emergency Medical Services.

ATTENTION WOMEN VISITORS

Women's activities at the convention will be curtailed to some extent because of the present war emergency, nevertheless we want you to come and we assure you that although the get-together will be on a more informal basis than in previous years, you will have a good time. The Woman's Auxiliary business session will be held as usual, and some form of entertainment will be provided. Plan to join us at French Lick!

MRS. GEORGE DILLINGER, *Chairman,*
Women's Entertainment Committee.

MOVING PICTURES

"Post-Partum Hemorrhage," a DeLee picture, shown by Petrogalar Laboratories, Inc., Chicago, moving picture room, exit, main convention hall.

CONSERVATION OF VISION BREAKFAST

Members of the state and county Conservation of Vision committees will meet for breakfast at 7:30 Wednesday morning, September 30, in the Blue Room of the French Lick Springs Hotel. Everyone who is interested in the subject of prevention of blindness is invited to attend. The members of the state committee are particularly anxious to have present at least one representative from each county medical society, even those societies which at the present time do not have a Committee on Conservation of Vision. All physicians who have attended this breakfast meeting in the past two years are convinced that it is one of the most interesting sessions held during the meeting of the state association.

COMMITTEES FOR FRENCH LICK CONVENTION

CONVENTION COMMITTEE: Chairman, George Dillinger, French Lick; Assistant Chairman, C. E. Boyd, West Baden Springs; A. P. Hauss, New Albany; John K. Spears, Paoli; W. E. Schoolfield, Orleans.

RECEPTION COMMITTEE: Chairman, H. L. Miller, West Baden Springs; E. P. Buckley, Jeffersonville; P. J. Blessinger, Jasper; G. Irene Polhemus, New Albany; W. E. Amy, Corydon; J. C. Dusard, Bedford; J. P. Wilson, Scottsburg; T. Kermit Tower, Campbellsburg.

REGISTRATION COMMITTEE: Chairman, C. E. Boyd, West Baden Springs; R. E. Baker, Orleans; Ivan A. Clark, Paoli; G. G. Colglazier, Leipsic; S. F. Teaford, Paoli.

WOMEN PHYSICIANS: G. Irene Polhemus, New Albany.

STAG PARTY COMMITTEE: Chairman, A. P. Hauss, New Albany; John Hamilton, Mitchell; H. B. Shacklett, New Albany; A. E. Newland, Bedford; J. I. Mitchell, Salem.

LANTERN COMMITTEE: Chairman, W. E. Schoolfield, Orleans; Ivan A. Clark, Paoli; John K. Spears, Paoli.

BANQUET COMMITTEE: Chairman, R. E. Baker, Orleans; O. H. Stewart, Orleans; W. S. Workman, Mitchell.

WOMEN'S ENTERTAINMENT COMMITTEE: Chairman, Mrs. George Dillinger, French Lick; Mrs. C. E. Boyd, West Baden Springs; Mrs. H. L. Miller, West Baden Springs; Mrs. J. R. Dillinger, French Lick; Mrs. Ivan Clark, Paoli; Mrs. J. K. Spears, Paoli; Mrs. Keith Hammond, Paoli; Mrs. R. E. Baker, Orleans; Mrs. W. E. Schoolfield, Orleans; Mrs. G. G. Colglazier, Leipsic.

OFFICIAL CALL TO THE HOUSE OF DELEGATES

The next annual session of the Indiana State Medical Association will be held at French Lick, September 29, 30 and October 1, 1942.

The House of Delegates will be constituted as follows: Marion County, thirteen delegates; Lake County, five delegates; Allen County, three delegates; St. Joseph County, three delegates; Vanderburgh County, three delegates; Daviess-Martin, Dearborn-Ohio, Delaware-Blackford, Fayette-Franklin, Fountain-Warren, Jasper-Newton, Madison, Parke-Vermillion, Tippecanoe, Vigo and Wayne-Union County societies, each two delegates; the other sixty-seven county societies, each one delegate; thirteen councilors; the ex-presidents, namely: C. S. Bond, Joseph R. Eastman, W. H. Stemm, W. R. Davidson, E. M. Shanklin, Charles N. Combs, Frank W. Cregor, George R. Daniels, Charles E. Gillespie, Angus C. McDonald, A. B. Graham, F. S. Crockett, J. H. Weinstein, E. E. Padgett, R. L. Sensenich, Herman M. Baker, E. M. Van Buskirk, Karl R. Ruddell and A. M. Mitchell. In addition to these, the president, secretary and treasurer, all without power to vote except in case of a tie, when the president shall cast the deciding vote.

Blank credentials have been sent by the secretary to each county society, and the properly executed credentials should be mailed to Thomas A. Hendricks, 1021 Hume Mansur Building, Indianapolis, or brought to the session. No delegates will be seated unless wearing the official badge.

The House of Delegates will convene promptly at 4:00 P. M., Tuesday, September 29, in the Convention Hall of the French Lick Springs Hotel, and again at 7:00 A. M., Thursday morning, October 1, in the West Room of the French Lick Springs Hotel (breakfast meeting).

The order of business will be as follows:

1. Call to order by the president.
2. Roll call and seating of qualified delegates.
3. Reading of the minutes of previous meetings.
4. Appointment of reference committees.
5. Report of executive secretary.
6. Report of the treasurer.
7. Report of the chairman of the council.
8. Reports of standing and special committees:
   - (1) Credentials.
   - (2) Executive.
   - (3) Arrangements.
   - (4) Scientific work.
   - (5) Public Policy and Legislation.
   - (6) Bureau of Publicity.
   - (7) Civic and Industrial Relations.
   - (8) Medical Education and Hospitals.
   - (9) Journal Publication.
   - (10) Secretaries' Conference.
   - (11) Permanent Study Committee on Health Insurance.
   - (12) Necrology.
   - (13) Study of High School Athletics.
   - (14) Mental Health.
   - (15) State Fair.
   - (16) Prevention of Traffic Accidents.
   - (17) Advisory Committee to the Bureau of Maternal and Child Health of the Indiana State Board of Health.
   - (18) Director of Research on Sickness Insurance.
   - (19) Historian.
   - (20) Liaison Committee of the Division of Services for Crippled Children.
   - (21) Auditing.
   - (22) Control of Cancer.
   - (23) Venereal Disease.
   - (24) Industrial Health.
   - (25) Study of Cultists and Irregular Practitioners.
   - (26) Indiana Inter-Professional Health Council.
   - (27) Anti-Tuberculosis.
   - (28) Conservation of Vision.
   - (29) M-Day and Veterans' Affairs.
   - (30) Physical Therapy.
   - (31) Pneumonia.
   - (32) Medical Relief.
   - (33) Study on Aid to Needy Physicians.
   - (34) Civilian Defense.
9. Reading of communications.
10. Reading of memorials and resolutions.
11. Unfinished business.
12. New business.
13. Adjournment.

The election of officers will be the first order of business at the second meeting of the House of Delegates. In addition to the regular officers, the terms of the following officers expire December 31, 1942, and their successors must be elected at the session: Delegates to the American Medical Association to succeed H. G. Hamer, Indianapolis, and George Dillinger, French Lick, and alternates, J. E. Ferrell, Fortville, and A. S. Giordano, South Bend.

Delegates from the second, fifth, eighth and eleventh districts are reminded that the terms of their councilors will expire December 31, 1942, and the new councilors should be elected to succeed the following:

Second District: H. C. Wadsworth, Washington.
Fifth District: O. O. Alexander, Terre Haute.
Eighth District: E. H. Clauser, Muncie.
Eleventh District: Ira Perry, N. Manchester.

Some of these elections already may have been held, but they should be reported to the House of Delegates at this session for confirmation.

Respectfully submitted,

THOMAS A. HENDRICKS,
Executive Secretary.

Reports of Officers and Committees

COMMITTEE ON CREDENTIALS

House of Delegates,

Indiana State Medical Association.

Gentlemen:

In accordance with the Constitution and By-Laws of the Indiana State Medical Association, each county medical society must certify its delegates and alternates previous to the annual session of the state association. A postal card notification signed by the secretary of the local county medical society and sent to the headquarters' office is sufficient certification. If you have not yet taken this action in your society, we urge that this be done immediately and that the headquarters' office of this committee be notified.

Respectfully submitted,

W. F. Carver, M.D., *Chairman,*
J. W. Bowers, M.D.,
W. E. Amy, M.D.

EXECUTIVE SECRETARY

House of Delegates,

Indiana State Medical Association,

Gentlemen:

It is a very sobering thing to realize that these are the first annual reports from the officers and the committees of your state society to be published since America was thrown into war. It is equally sobering to know that it may well be many a long year before reports once again will be concerned with peacetime and reconstruction problems. Therefore, because of the complete seriousness of the situation, we are asking both those nine hundred odd Indiana physicians who are in active military service, as well as those who are serving in a civilian capacity, to read these reports, because what the medical profession of America does in this hour of emergency is going to determine the opinion that the public has of medicine, and what happens to medicine after the war is over will depend on what the American public thinks of medicine, and this will affect both those in and out of service.

So, at this time of stress, it must be encouraging for the Indiana physicians to hear a word of commendation upon the manner in which the profession is doing the war job. Hence we quote here the statement made a few weeks ago by Carl Wilde, president of the Indiana State Bar Association, in his presidential address before the annual meeting of that organization. We have no hesitancy in doing this for the credit goes to the profession, to the tireless work of the members of the state and local Procurement and Assignment committees who have done a swell job of "calling 'em as they see 'em," and to each and every doctor who has volunteered and is serving to his utmost in that capacity best suited to win the war.

> "I feel impelled at this point to refer particularly to the work that has been done by another profession in Indiana in respect to the war effort. It happens that my offices are immediately adjacent to those of the Indiana Medical Society and I have been privileged, therefore, to observe at first hand the work that has been done by that organization and by the physicians of Indiana in respect to meeting the needs of the armed forces for medical services. I can say advisedly that no organization and the members of no profession have ever done a finer, more efficient, more patriotic piece of work than have the Indiana Medical Society and the individual physicians of Indiana in coordinating and mobilizing their forces to meet the war-time needs of their country. They are, moreover, doing everything possible to mitigate the hardships which must inevitably fall upon many communities because of a dearth of qualified physicians due to the demands for doctors in the armed forces. I pay this tribute to the Indiana Medical Society and to the doctors of Indiana in sheer admiration of the manner in which they have performed the gigantic task they were called upon to do."

Respectfully submitted,

Thomas A. Hendricks,
Executive Secretary.

TREASURER

House of Delegates,

Indiana State Medical Association.

Gentlemen:

The accompanying report prepared by the George S. Olive and Company, certified public accountants, gives our financial statement for the period ending December 31, 1941.

On March 30, 1942, upon the advice of the Executive Committee, the sum of $2,000.00 was invested in Defense Series G Bonds and these bonds were placed in the general fund.

On June 24, 1942, a check for $307.20 was received, this being the final distribution of $30.72 per unit for the ten units of Rokeby stock. The report on this stock follows:

Stock purchased March 20, 1929, 10 units	$1,000.00

Income:

July 9, 1929, Interest	$30.00	
January 7, 1930, Interest	30.00	
July 8, 1930, Interest	30,00	
January 8, 1931, Interest	30.00	$120.00
April 16, 1936, Liquidation check	$20.00	
September 3, 1937, Liquidation check	15.00	
August 31, 1938, Liquidation check	10.00	
December 30, 1940, Liquidation check	10.00	55.00
Total income	$175.00	
Final check	307.20	482.20
Loss		$ 517.80

In previous reports this stock had been carried at its face value. It is now written off with a loss of $517.80.

Respectfully submitted,

A. F. WEYERBACHER, M.D.,
Treasurer.

EXHIBIT A

INDIANA STATE MEDICAL ASSOCIATION

ANALYSIS OF INCREASE IN ASSETS, ALL FUNDS, YEAR ENDED DECEMBER 31, 1941

Total Assets, December 31, 1941—Exhibit B		**$60,063.99**
Total Assets, December 31, 1940		**57,883.21**
Net Increase		**$ 2,180.78**
Arising from the following sources:		
Excess of operating cash disbursements over operating cash receipts general fund, year ended December 31, 1941:		
Receipts—Exhibit C	$37,040.53	
Disbursements—Exhibit C	38,564.90	
Excess of operating disbursements	**$ 1,524.37**	
Excess of cash disbursements over cash receipts—medical defense fund, year ended December 31, 1941	**$ 2,642.47**	
Excess of cash receipts over cash disbursements, The Journal of the Indiana State Medical Association, year ended December 31, 1941	387.62	
	$3,779.22	
Add:		
Increase in investments:		
United States Treasury Bonds	$ 6,000.00	
	$ 2,220.78	
Less:		
Reduction in investments:		
Beachton Court Apartment Bonds	$ 40.00	
Total net increase		$2,180.78

EXHIBIT B

STATEMENT OF ASSETS, ALL FUNDS, AT DECEMBER 31, 1941

General Fund

Cash on deposit—Exhibit C		$12,637.06
Petty cash fund		200.00
Investments:		
Indianapolis, Indiana, City Hospital Bonds	5,000.00	
Marion County, Indiana, Flood Prevention bonds	3,000.00	
United States Treasury bonds	13,000.00	
Beachton Court Apartments, Chicago, bonds evidenced by certificate of deposit	3,580.00	
Rokeby Apartment Hotel, Chicago, bond evidenced by certificate of deposit	945.00	
Total general fund assets		$38,362.06

The Journal of the Indiana State Medical Association

Cash on deposit—Exhibit D		3,691.26

Medical Defense Fund

Cash on deposit—Exhibit E		$ 5,010.67
Investments:		
Marion County, Indiana, Flood Prevention bonds	2,000.00	
United States Treasury bonds	11,000.00	
Total medical defense fund assets		18,010.67
Total Assets—All Funds—Exhibit A		**$60,063.99**

EXHIBIT C

COMPARATIVE STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEARS ENDED DECEMBER 31, 1941, AND DECEMBER 31, 1940

GENERAL FUND

	Year Ended Dec. 31, 1941	Year Ended Dec. 31, 1940	Increase Decrease
CASH BALANCE AT BEGINNING OF YEAR	$14,161.43	$ 5,834.98	$8,326.45
Receipts			
Membership dues	30,224.00	31,184.00	**960.00**
Income from exhibits	5,390.00	2,865.00	2,525.00
Petty cash refund contra	300.00	.....	300.00
Orange County Medical Society on 1940 convention	233.70	.....	233.70
Indianapolis Society refund of convention expense	136.54	.....	136.54
Miscellaneous refunds	20.04	.....	20.04
Beachton Court Liquidation Trust Distribution	40.00	60.00	**20.00**
Rokeby Liquidation Trust Distribution	.....	10.00	**10.00**
Bonds matured	.....	3,000.00	**3,000.00**
Interest income:			
United States Treasury bonds	368.75	286.25	82.50
Indianapolis, Indiana, City Hospital bonds	200.00	200.00	.....
Marion County, Indiana Flood Prevention bonds	127.50	127.50	.....
Fort Wayne, School Improvement bonds	.....	135.00	**135.00**
Total receipts	37,040.53	37,867.75	**827.22**
BEGINNING BALANCE PLUS CASH RECEIPTS	$51,201.96	$43,702.73	$7,499.23
Disbursements			
Transfer of applicable portion of dues to The Journal of the Indiana State Medical Association—Exhibit D	$ 6,428.00	$ 6,376.00	$ 52.00
Medical Defense fund—Exhibit E	2,337.75	2,328.00	9.75
Headquarters' office expense	10,259.73	10,427.15	**167.42**
Publicity committee	239.48	476.44	**236.96**
Public policy	1,554.30	510.55	1,043.75
Council	6,140.66	3,260.08	2,880.58
Officers	642.79	655.81	**13.02**

Rent	500.00	500.00	
Annual session	4,945.26	2,976.31	1,968.95
Miscellaneous committees	1,383.49	1,779.38	395.83
Postgraduate study	50.82	192.70	141.88
Federal O.A.B. tax	57.92	58.88	.96
Military dues refunds	372.50		372.50
Petty cash refund contra	300.00		300.00
Other refunds	20.00		20.00
Securities purchased	3,332.20		3,332.20
Total disbursements	38,564.90	29,541.30	9,023.60
Cash Balance at End of Year *(Exhibit B)*	$12,637.06	$14,161.43	**$1,524.37**

EXHIBIT D

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEAR ENDED DECEMBER 31, 1941

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

BALANCE, JANUARY 1, 1941		$ 3,303.64
Receipts:		
Subscriptions—members—Exhibit C	$ 6,428.00	
Subscriptions—non-members	122.25	
Advertising	10,992.68	
Collections on accounts receivable	275.40	
Single copy sales	59.75	
Electrotypes	96.60	
Total receipts		17,974.68
		$21,278.32
Disbursements:		
Editorial and management salaries	7,816.18	
Printing	7,092.83	
Postage	720.65	
Electrotypes	549.58	
Office rent and light	247.46	
Office supplies	459.44	
Press clippings	89.68	
Federal O.A.B. tax	52.89	
Extra help—reporting	249.18	
Advertising commissions	106.80	
Expenses—editor and editorial board	95.45	
Copyright fees	24.72	
Surety bond	20.00	
Reprints	18.00	
Advertising refund	24.00	
Sundry	20.20	
Total disbursements		17,587.06
Balance, December 31, 1941—Exhibit B		$ 3,691.26

EXHIBIT E

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEAR ENDED DECEMBER 31, 1941
MEDICAL DEFENSE FUND

BALANCE, JANUARY 1, 1941		$ 7,653.14
Receipts:		
Transfer of applicable portion of dues from the general funds—Exhibit C	$2,337.75	
Interest income:		
United States Treasury bonds	$ 237.50	
Indianapolis, Indiana, City Hospital bond	23.75	
Marion County, Indiana, Flood Prevention bonds	85.00	
	$ 346.25	
Total receipts		2,684.00
		$10,337.14
Disbursements:		
Attorney's retainer fee		$ 600.00
Malpractice fees		1,300.00
Treasurer's bond		15.00
Collection fees		2.10
Printing		27.17
U. S. Treasury bonds—par value	$3,000.00	
Premium and accrued interest	332.20	
		3,332.20
Service on physicians defense policies		50.00
Total disbursements		5,326.47
Balance, December 31, 1941—Exhibit B		$ 5,010.67

CHAIRMAN OF THE COUNCIL

House of Delegates,

Indiana State Medical Association.

Gentlemen:

Detailed reports of the business which has been brought before the Council during the past year have been published in the November, 1941, and the February, 1942, issues of THE JOURNAL, and hence your chairman at this time presents only a brief summary of some of the outstanding actions taken by the Council.

FIRST MEETING, INDIANAPOLIS, SEPTEMBER 23, 1941

Dr. Floyd T. Romberger, chairman, called the meeting to order at 1:15 P. M., with the roll call showing eleven councilors present. In addition to the councilors the members of the Executive Committee and the chairman of the General Arrangements Committee were present.

Councilor district reports as printed in the September, 1941, JOURNAL and the handbook of the House of Delegates were accepted unanimously.

Journal Elections

Dr. E. M. Shanklin, of Hammond, was re-elected unanimously as editor of THE JOURNAL for 1942.

The following members were elected to serve on the Editorial Board for three years:

Dr. J. O. Ritchey, Indianapolis.
Dr. Robert V. Hoffman, South Bend.

Following adjournment of the regular session, the Council went into executive session to consider the case of Dr. Donald Lashley of Tell City.

SECOND MEETING, INDIANAPOLIS, SEPTEMBER 25, 1941

Directly upon adjournment of the House of Delegates, the second meeting of the Council was called, the roll call showing ten councilors present along with the officers of the state association and the members of the Executive Committee.

Dr. E. O. Asher Elected to Executive Committee

Dr. C. H. McCaskey resigned as one of the elected members of the Executive Committee due

to his election as president-elect of the state association, and Dr. E. O. Asher of New Augusta was elected to fill Doctor McCaskey's place on the Executive Committee.

Military Preparedness Program

The Council considered the set-up for the military preparedness program in Indiana. Dr. R. L. Sensenich, a member of the Board of Trustees of the American Medical Association, spoke of the new military board (Procurement and Assignment Service) that was to be appointed. All members of the Council were made members of the State M-Day Committee.

Retiring Members Thank Council

Dr. A. M. Mitchell, the retiring president, and Dr. James M. White, retiring councilor, thanked the members of the Council for their assistance, help and advice during the past year.

MIDWINTER MEETING, INDIANAPOLIS, JANUARY 11, 1942

The Council convened at 10:15 A.M., January 11, 1942, at the Columbia Club, Indianapolis, with Dr. Floyd T. Romberger, Lafayette, the chairman, presiding. Roll call showed ten councilors present along with the officers and members of the Executive Committee of the state association.

Reports by Districts

Short, informal reports were made by each councilor following the reading of a telegram from Dr. H. C. Wadsworth, of Washington, councilor of the Second District, who was unable to attend, in which he said, "We are all proud of our state association. Carry on."

Motion on Marriage License Racket

Dr. N. K. Forster, councilor for the Tenth District, discussed the "marriage license racket in Lake County" and upon his motion a resolution instructing "the executive secretary to write to the State Board of Health advising that it is the desire of the Council of the Indiana State Medical Association that some steps be taken at once to formulate some method of procedure which will obviate the abuses arising out of the pre-marital blood examination law" was adopted.

Reports of Officers

Short reports were made by Dr. A. M. Mitchell, president 1941, Dr. M. A. Austin, president 1942, Dr. C. H. McCaskey, president-elect, and Dr. A. F. Weyerbacher, the treasurer. The treasurer's report showed that the association had operated with a net increase of $2,180.78 over the balance at the end of 1940.

The treasurer was instructed to buy defense bonds up to an amount not to exceed $5,000.00.

Dr. E. M. Shanklin, editor of THE JOURNAL, reported that there would be about a 17 per cent increase in the cost of publication of THE JOURNAL in 1942. Dr. Shanklin said, "So long as the emergency continues THE JOURNAL will be all-out for the war. We will attempt to present all emergencies as they arise."

Dues of Physicians in Military Service

The Council ruled that dues of physicians in military service should be paid out of the reserve funds of the association.

Plans for 1942 Annual Session

A preliminary report, along with proposals and suggestions for the annual session to be held at French Lick on September 29 and 30 and October 1, 1942, was presented to and approved by the Council.

The Council approved an estimated budget of $850.00 for the 1942 annual session.

Membership Report

Membership report by districts showed that out of a total of 4,146 physicians in the state, 3,225 were members of the association in good standing in 1941 as compared with 3,189 in 1940, a gain of 36 over 1940.

The War

The executive secretary gave a first-hand report upon the Procurement and Assignment Service situation in Washington. He is serving as a consultant to the Directing Board of the Procurement and Assignment Service in Washington upon the call of Dr. Frank Lahey, president of the American Medical Association and chairman of the Board. Mr. Hendricks reported that a rapid expansion of the entire war program could be expected, involving the rapid dislocation of physicians and an immediate demand for physicians under thirty-seven for the armed services.

Captain Glen Ward Lee, director of the Medical Division, Indiana Selective Service, spoke of the deferment of medical students.

Dr. Floyd T. Romberger presented a program entitled, "A Permanent Plan for Physicians' Universal Military Service."

Secretaries' Conference

Dr. R. L. Hane, chairman of the Committee on Secretaries' Conference, told of the arrangements for a war meeting with General Lewis B. Hershey, chief of Selective Service, and Major Sam F. Seeley, executive officer of the Procurement and Assignment Service on the program.

Nominations for Editorial Board

The following nominations were received for the Editorial Board: Drs. Harry W. Garton, Fort Wayne; Edgar F. Kiser and Ernest Rupel, Indianapolis; John L. Arbogast, Lafayette, and N. K. Forster, Hammond. Two places are to be filled on the Editorial Board from this group of nominations at the first meeting of the Council on September 29, 1942.

Elections for 1942.

Dr. C. A. Nafe and Dr. E. O. Asher, present members, were re-elected members of the Executive Committee for 1942.

Dr. Floyd T. Romberger was unanimously re-elected chairman of the Council for 1942.

Luncheon Meeting

At the luncheon meeting reports were made by the following committee chairmen and guests: Drs. F. S. Crockett, H. G. Hamer, George Dillinger, D. F. Cameron, Larue Carter, H. S. Leonard, Captain Glen W. Lee, Drs. C. R. Bird, John W. Ferree, Howard B. Mettel, Norman M. Beatty, J. William Wright, R. L. Hane, C. V. Rozelle, Alfred Ellison, J. S. Leffel, W. U. Kennedy, and Mr. Albert Stump.

Respectfully submitted,

FLOYD T. ROMBERGER, M.D., *Chairman.*

REPORTS FROM DISTRICT COUNCILORS

FIRST COUNCILOR DISTRICT

The meeting of the First District Medical Society was held in Evansville on May 28, 1942, at which time Dr. Willis D. Gatch, dean and professor of Surgery, Indiana University School of Medicine, was the guest speaker. His subject was "The Diagnosis and Treatment of Disturbances of Fluid Balance in Burns, Peritonitis and other Conditions."

The following officers were elected: President, Dr. W. D. Stover, Boonville; vice-president, Dr. Robert Viehe, Evansville; secretary, Dr. Harmon Stanton, Evansville.

Much activity has been shown in regard to the Procurement and Assignment of Physicians in the First District. The Recruiting Board was in Evansville on three occasions. Applications for commission were received from all but a possible two or three of the physicians under forty-five years of age in this district. Of these, all who were physically qualified were tendered their commissions and most of them have already entered the service.

I. C. BARCLAY, M.D., *Councilor.*

* * *

SECOND COUNCILOR DISTRICT

On May 26, 1942, as instructed by the United States Government, the Indiana Medical Procurement and Assignment Board called the doctors of the Second District to Vincennes. Answer to call was practically unanimous. The Second District has, as far as I can can learn, furnished its quota of doctors to the Government service.

On June 2 the District met at Washington for its annual meeting. Attendance was good, the chicken better. Dr. James N. Collins, of Indianapolis, presented and discussed "X-Ray Films and Their Diagnosis." Dr. C. J. Clark, of Indianapolis, discussed at length certain phases of heart disease. Both speakers followed their formal talks with round-table discussion that spoke well for the technical information maintained by the District membership.

Doctors attending the meeting were almost unanimous in their "dread" of what the next few years will bring to them: work—too much actual labor—social changes, wartime government, post-war period, et cetera. The general opinion seemed to be that "if we did not hang together we would certainly hang separately."

H. C. WADSWORTH, M.D., *Councilor.*

* * *

THIRD COUNCILOR DISTRICT

The Third District Medical Society met at New Albany, May thirteenth. There was a good attendance, and a well balanced scientific program was presented. The Army recruiting officers were present and many doctors enlisted for active duty. Those enlisted and accepted were: Drs. James P. Gilliatt, of Salem; John P. Gentile, New Albany; P. M. Davis, New Albany; Morton F. Wolfe, New Albany; Samuel M. Baxter, New Albany; William F. Edwards, New Albany; Kenneth H. Brown, New Albany; Frederick M. Applegate, Corydon; and William H. Garner, New Albany. Also several physicians enlisted before and since that date.

The readjustment of patients to new physicians has worked smoothly. The doctors left at home realize that they will be required to serve in possibly a greater capacity than many in the Army.

The Third District will not have its fall meeting inasmuch as so many members are in service and also the State Medical Association will have its fall meeting in our district.

WM. H. GARNER, M.D., *Councilor.*

* * *

FOURTH COUNCILOR DISTRICT

Regular meetings and activities, in common with most other districts, were more or less interfered with. However, a fair amount of constructive work was accomplished.

The shortage of physicians has become acute in a few places where there were a preponderance of young practitioners. This is being partially remedied by older men taking on more work and the allocation of others.

One county unorganized for years has been organized and had several meetings. This leaves but one county, with only two or three physicians, unorganized in the district.

We had a good district meeting May fourteenth at the Dearborn Country Club near Aurora, both in the afternoon and evening. Our President, Dr. M. A. Austin, and Colonel Bird were with us during the afternoon. We were sorry not to have them with us in the evening. Our faithful Executive Secretary, Tom Hendricks, came down for the evening session.

Honorable Charles A. Lowe, of Lawrenceburg, guest evening speaker, favored us with a fine discourse on "The Effect of Law and Medicine on Civilization."

The Medical Officers' Recruiting Board was in session at Aurora during the day and graciously attended our evening session, after ending the previous day's work at 2:00 A. M.

J. C. Elliott, M.D., *Councilor.*

* * *

SIXTH COUNCILOR DISTRICT

Every county in the Sixth District has a fine organization and all are doing good work.

The entire district is doing its part in the Procurement and Assignment of Physicians for the armed forces of the nation. We have furnished more than our quota.

The annual meeting of the Sixth District Medical Society was held at Liberty in May. It was an all-war meeting. The next meeting will be held in Shelbyville on May 19, 1943.

Samuel Kennedy, M.D., *Councilor.*

* * *

SEVENTH COUNCILOR DISTRICT

The past year has seen two hundred seven members of the Seventh District enter Military Service. This does not include members who are allocated to General Hospital No. 32. Local procurement and assignment groups have functioned in a highly commendable fashion. Those men remaining in practice will bend every effort to uphold the standards of the medical profession in giving good medical care. This must be done if we are to avoid some type of socialized medicine. We should be proud that our state has filled the quota for medical men well in advance of many other states.

The Seventh District meeting was held in conjunction with the Marion County Medical Society at which time we were guests of the staff of Billings General Hospital at Fort Harrison. An excellent program was provided and refreshments were served following the meeting. The Seventh District's fall meeting will be held November 3, the place and program to be announced later.

C. J. Clark, *Councilor.*

* * *

EIGHTH COUNCILOR DISTRICT

The most important part of the Eighth District report is, as is common to all districts, the loss of physicians who have entered the military service. The spirit of those remaining seems to be united in that attitude of cooperation which means the fulfillment of our responsibilities during times of stress.

The annual meeting was held at the Anderson Country Club on May 20, 1942. The Madison County Medical Society provided ample entertainment during the afternoon and an excellent dinner in the evening to which the wives of members were invited. The speakers on the program were Tom Hendricks, who discussed "Operation of the Procurement and Assignment Service," and Colonel William Keller of the United States Public Health Service, who discussed "Medicine and Defense Problems."

The officers elected for the coming year were: L. R. Mason, president, and C. A. Ball, secretary and treasurer. The 1943 meeting will be held at Muncie.

E. H. Clauser, M.D., *Councilor.*

* * *

NINTH COUNCILOR DISTRICT

The annual Ninth Councilor District meeting was held at Tipton, May 21st, with the Tipton County Society acting as the gracious host. Somewhat streamlined owing to the war emergency, the credit for success of the meeting belongs to Drs. Cotton, Burkhart, and Tranter, and their professional associates.

Our State President and Executive Secretary graced the meeting with their usual genial presence.

The 1943 assembly will be held at Lafayette, May 20th, the Tippecanoe County Society entertaining the district.

The following are the officers for 1943:

Dr. Earl VanReed, President; Dr. Gordon A. Thomas, Vice-President; and Dr. John C. Burkle, Secretary-Treasurer—all of Lafayette.

Floyd T. Romberger, M.D., *Councilor.*

* * *

TENTH COUNCILOR DISTRICT

Like all districts throughout the state the Tenth Councilor District has been through the process of recruitment by the Army Medical Recruiting Board and has found a great many of its members drawn into the armed services. In spite of the urgency of these needs and the added burden in fulfilling civilian needs, a very interesting spring meeting was held at "The Spa" near Gary, on May seventh. Speakers included Drs. D. B. Phemister, F. L. Adair, Sidney Portis and S. A. Poncher, all of Chicago. Pending the outlook of war activities the date and place of the fall meeting was left open.

The Jasper-Newton County Medical Society, because of its few remaining active members, has found it advisable to attend the Iroquois County meetings in Illinois, while still retaining their organization as an integral part of the Indiana State Medical Association.

Meetings of the Porter County Medical Society have been well organized and well attended, although here too there has been a loss of some men who have joined the armed forces.

Lake County has had a very busy year and has disposed of many disturbing problems in a most excellent manner. The splendid cooperation of the membership in holding various committee meetings, and the dispatch with which their questions are

handled, has again emphasized the wisdom of conducting Society matters on a business-like basis through the medium of an executive secretary.

In general, the Tenth District is meeting the emergencies and sacrifices of the war in the true spirit of the medical profession. It will continue to co-operate.

N. K. Forster, M.D., *Councilor.*

* * *

ELEVENTH COUNCILOR DISTRICT

Each of the seven counties composing the Eleventh Indiana Councilor District Medical Society is well organized and active. Each county is already well represented with men in service, and others are going soon. Our May meeting, which was held at Flora, May 20, was well attended and the speakers were outstanding. Considerable time was spent in discussing the problem of commissions and enlistments for doctors into the United States Service. The plan as worked out by the State Council was explained by Councilor Dr. Ira E. Perry and Dr. E. M. Shanklin, editor of THE JOURNAL of the Indiana State Medical Association.

The Scientific Program Committee met recently and arranged the program for the October meeting, to be held at Peru, October 21. An outstanding program is being arranged and we extend a cordial invitation to all members of the State Medical Association.

The officers elected at the Flora meeting are as follows: President, Dr. L. E. Jewett, Wabash; Secretary-Treasurer, Dr. O. G. Brubaker, North Manchester, re-elected; Councilor, Dr. Ira E. Perry, North Manchester, re-elected for a term of three years.

Ira E. Perry, M.D., *Councilor.*

* * *

TWELFTH COUNCILOR DISTRICT

The paramount thing in the Twelfth District, as in all the others, has been the recruiting of physicians for the Army. The response of the physicians has been unusually good, and the district has more than filled its quota for the present. We endeavor to treat all physicians equally and fairly. The Procurement and Assignment Committee were very cooperative in this work. All of the counties have been carrying on their work very well even though their burdens have increased as many physicians have gone into the armed forces.

Harvey L. Murdock, *Councilor.*

* * *

THIRTEENTH COUNCILOR DISTRICT

The members of the Thirteenth District Medical Society in company with all of the physicians of the state have been extremely busy in the past year. The increased tempo of all business has accounted for some of this, but a large part is due, especially in recent months, to the absence of so many of our men in the armed services. This district has had forty-three of its members commissioned to date, which is the second largest number of any of the districts. Decision on the part of local committees as to the availability of doctors for the Army has apparently been a difficult assignment.

Most errors we feel have been made in classifying as available too many doctors from the smaller communities. Usually these mistakes have been corrected before the actual induction of the physician into the service.

While district meetings will of necessity be smaller this year, there are many matters which should receive attention at such meetings.

Alfred Ellison, M.D., *Councilor*

EXECUTIVE COMMITTEE

House of Delegates and the Council,
Indiana State Medical Association.

Gentlemen:

I. "WIN THE WAR."

"Win the war" is the principal business on the docket of the Indiana State Medical Association and your Executive Committee considers all other matters, irrespective of their importance in normal times, to be of secondary concern until that objective is accomplished.

The principal job to date of medical organization has been to help get ready to win the war by aiding in the procurement of physicians for the armed services without too much disruption of medical services for the civilian population. To this end the Executive Committee has followed the policy of all-out, total co-operation with the Medical Preparedness Committee of the American Medical Association and the Procurement and Assignment Service Army Medical Officers' Recruiting Board, and it will continue this policy with the newly-formed War Participation Committee of the American Medical Association, created by the House of Delegates at the Atlantic City session. Just what additional duties this will place on the state association of course cannot be foreseen, but whatever these may be the Executive Committee feels absolutely confident that we in Indiana will do our part —and a bit more.

Naturally, your committee is pleased over the fact that Indiana is doing its share in supplying its quota of doctors for the armed forces, and we wish to commend wholeheartedly the work of the Indiana Procurement and Assignment Service under the direction of Dr. Charles Bird, the state chairman.

We do feel keenly that something very definite should be done to assure the physician who leaves his practice, disrupts his professional life and joins the armed forces that he is going to do something

really worth while. From reports we receive, the situation is spotty. Some physicians in the service are busy day and night—in fact are overworked; others tell us that they are sitting around doing next to nothing. We therefore urge that the armed forces themselves make a reappraisal of their needs so that the services of the physicians in the Army and Navy are utilized to the best advantage and that insofar as possible physicians are relieved of administrative and paper work that might be done by others, so that doctors may be released for the work they are supposed to do.

II. PROGRAM FOR 1943.

We suggest the following 1943 program for organized medicine in general, and for Indiana medicine in particular:

1. State medical association concentrate all efforts on total war and work largely on the following two big problems:

   a. Supply physicians for armed services according to quota;

   b. Supply physicians to take care of civilian populations in boom areas and in places where a real shortage of physicians exists.

2. Every effort must be maintained to keep local medical organizations in existence and as active as possible.

3. All efforts of cultists and irregulars to take advantage of the situation to lower standards in medical education and practice should be checked.

4. In view of the all-out effort which has been made to secure physicians for the armed forces, it behooves our association to prepare an all-out plan which will see to it that our members as they return from service shall be properly and adequately cared for in every detail.

5. A feeling of understanding and close co-operation between medical organization and the individual physician who is now in service should be fostered and maintained. Perhaps a "morale section" which could function under the direction of the Surgeon General's Office and the American Medical Association, headed by an officer who could contact individual physicians and have authority to make reports on conditions and "trouble shoot" would be effective.

III. DUTIES AND ACTIVITIES OF THE STATE ASSOCIATION DURING 1942.

Despite the fact that the emphasis necessarily was placed upon the war, the Executive Committee, of course, had many of the usual problems and routine duties to face. The report of the activities of the committee can be made best under the following three headings:

A. Administrative.
B. Management of THE JOURNAL.
C. Administrator of the medical defense fund.

A. ADMINISTRATIVE DUTIES OF COMMITTEE.

1. Regular meetings of committee. Throughout the past year the Executive Committee has held regular formal monthly meetings, but things have moved so fast and problems have been so numerous that untold informal conferences and get-togethers have been held throughout the year, with two or more members of the committee, in order that these problems might be met promptly and not have to await the formal action of the entire committee. Such questions involving new policies of course were answered only after formal discussion by the entire committee.

The custom of having various key committees meet with the Executive Committee for lunch during the monthly Executive Committee meetings has brought most satisfactory results. The committee has welcomed individual members of the association or representatives from local medical societies to these meetings in order to discuss with them any specific problem or approve a detailed program of action that was to be undertaken by any official group of the state association. In this way the officers and the members of the Executive Committee have been able to keep themselves better informed in regard to the entire medical picture in Indiana than otherwise would be possible.

2. Membership. The most significant fact in regard to membership during the past year, of course, is that 214 physicians are maintained as members of the Indiana State Medical Association although they are serving with the military forces in this country. For the ninth successive year an increase is shown in the membership of the Indiana State Medical Association, the figures for the last five years being as follows:

Year	*Number of Physicians in Indiana*	*Regular Members*	*Honorary Members*	*Total Members*
1938	4,081	2,970	62	3,032
1939	4,081	2,982	95	3,077
1940	4,132	3,026	40	3,120
1941	4,132	3,064	106	3,170
1942	4,132	3,081	110	3,191

(a) *No state dues for physicians in military service.* The following resolution was passed by the House of Delegates at the 1940 annual session at French Lick:

> "The Indiana State Medical Association shall remit the dues of those doctors called to the colors for the duration of that service."

At the midwinter meeting of the Council held January 12, 1941, the meaning of this resolution was amplified by the following statement:

> "*Exact time when a physician in military service is eligible to complimentary membership.* Motion was made by Dr. Clark that the dues of a physician who has been placed in active duty should be refunded on a pro-rated monthly basis, dating from the time he enters active duty. Motion duly seconded and carried."

The committee suggests that secretaries report promptly the names of the men who go into serv-

ice in order that the proper refunds may be made by the headquarters office in accordance with the action of the House of Delegates and the Council.

(b) *Question as to whether United States Public Health Service employees should have dues deferred.* During the year the question arose as to whether United States Public Health Service employees should have their dues deferred, the same as those men who are in active duty in the armed services in the Medical Corps of the Army or Navy. The committee ruled that the motion as previously stated would not apply to physicians in the employ of the United States Public Health Service unless the committee is otherwise instructed by the House of Delegates.

(c) *Honorary members.* Each county medical society is urged to check its records in order that all physicians who are eligible to honorary membership may be included in the proper classification. Article IV, Section 5, of the Constitution reads as follows regarding honorary membership:

> "Honorary members shall consist of representative teachers and students of science allied to medicine and of physicians and surgeons of distinction not members of the Indiana State Medical Association, who may by vote of the House of Delegates be elected to honorary membership; and any physician of the State of Indiana who has attained the age of seventy-five years and has held membership in the Indiana State Medical Association for twenty years or more may be elected to honorary membership by vote of the House of Delegates, provided his name be proposed for such honorary membership by the county medical society of which such physician is a member."

The committee has ruled that if the honorary members desire THE JOURNAL, the subscription price should be paid by the local medical society.

3. State and socialized medicine. Individual doctors view the future with apprehension and feel that if there is not to be a complete socialization of the profession, at least something will be attempted which will be an approach to it. This being the case, the Executive Committee has taken unusual precautions to keep itself informed not only in regard to the activities which might socialize medicine in Indiana but also concerning national trends and national happenings which cannot help but affect the practice of medicine even in the most remote community of Indiana. Among these movements and activities during the past year which bring up the question of socialized medicine are:

(a) *National League of Women Voters' study of socialized medicine.* The national organization adopted the following program in regard to health:

> "Development of a public health policy which will ensure federal, state and local responsibility for the promotion of public health services." (No mention of socialized medicine or health insurance.)

The Indiana League has the following plank in regard to health in its program:

> "Voluntary non-profit hospital insurance."

(b) *Farm Security Administration.* The principle of the patient-physician relationship agreed to by both the Farm Security Administration and the Executive Committee of the state medical association has been upheld here in Indiana as adopted in the original agreement made with the Farm Security Administration group four years ago.

(c) *Medical service plans in Ohio and Michigan.* The progress made by medical service plans under the direction of the profession in Ohio and Michigan have been watched carefully by the Executive Committee.

(d) *Rhode Island and New Jersey state medical legislation.* The Rhode Island health insurance law, the first state law making it the outright obligation of the state to look after medical care of all its citizens, is being studied by the committee. Action taken by the New Jersey legislature along the same lines also is being watched by the committee.

(e) *Interest of labor in medical service and hospitalization plans.* Letters were received from J. B. Mansfield, chairman of the Committee for Hospitalization Plan of the Indiana State Industrial Union Council, affiliated with the C. I. O., advocating the passage of a group hospital and medical service bill at the next session of the legislature.

(f) *Hospital Association advocates preparing hospitalization bill.* The Indiana Hospital Association is working on a hospitalization plan which it hopes may be put into effect without any further legislative action. It is the opinion of the Executive Committee that the medical profession would not be opposed to the proper hospitalization plan (the medical association generally sponsored such a plan several years ago in co-operation with the hospital association) if such a plan were presented by the hospital association. The state association, however, feels that it would sponsor actively such a plan only if the plan, according to the attorney general's opinion, would be legal in this state. Numerous meetings have been held by members of the Executive Committee with representatives of the Indiana Hospital Association, Miss Nellie Brown and Clarence Hess, together with John R. Mannix, head of the Michigan Hospital Service.

4. Medical relief. The new legislation placing responsibility for medical care of all recipients of old age, blind, and dependent children assistance upon the Department of Public Welfare has brought forward the whole question of medical relief. As chairman of the Medical Relief Committee of the state medical association, Dr. John Leffel, up until his death, did a remarkable job upon behalf of the public and the medical profession. He worked tirelessly with the authorities of the State Department of Public Welfare. The Executive Committee takes this opportunity again to commend the tireless, unselfish and effective work done by Doctor Leffel, both as a member of the Medical Relief Committee of the Indiana State Medical Association and as the representative of the Indiana State Medical Association upon the State Medical Aid Advisory Committee of the State Department of Public Welfare, and republishes the resolution passed by the Advisory Committee in regard to Doctor Leffel's services:

> "RESOLVED: That the members of the Indiana State Department of Public Welfare Advisory Committee on Medical Aid, cognizant of the civic and professional interests, the sincerity of purpose and tireless effort of Dr. John Leffel, express deep regret for his sudden and unexpected death. His competence to speak for the medical profession on the relationship between the profession and government relief agencies earned him the respect of the Committee. His contribution to the progress made in the State Department in respect to administration of the medical aid relief is noteworthy. His is a personal as well as a professional loss to the Committee."

Doctor Leffel has been replaced by Dr. E. O. Asher, of New Augusta, who will present the Medical Relief Committee report to the House of Delegates.

5. Broadening of Social Security Act. In connection with proposals to broaden the base of the Social Security Act so as to bring within its coverage certain employees now excluded, consideration apparently has been given to two sections of the Act providing for health insurance and disability benefits. The war effort apparently has slowed down any further definite step to write a federal health insurance program into the Social Security Act, at least for the present.

6. A.M.A. group health case. The opinion of the District Court of Columbia upholding the decision of the lower court against the American Medical Association is, of course, difficult to comment upon at this time. However, the Executive Committee has followed the reaction of the newspapers concerning the finding of the lower court which had interpreted the decision as being one which will encourage experimentation with medical service plans. Your Executive Committee feels that despite the finding of the District of Columbia Appellate Court it is much better not to attempt any experiment in medical service plans at the present time but to wait until after the war to study and, insofar as possible, to perfect a plan for Indiana.

7. Office force. Rather than taking federal funds for the work of the Procurement and Assignment Service, the Executive Committee thought that it would be better to absorb the cost of doing the procurement and assignment work in this state. This has entailed considerable outlay in postage and long distance calls and has placed an extra burden upon the headquarters' office staff. However, as the Executive Committee understood that in the original agreement setting up Procurement and Assignment Service, the American Medical Association officers asserted that this work would be done by the state medical organizations without any expense to the government, the committee felt that although federal funds might be available, the expense should be absorbed by the state medical association. However, at several times during the year extra help has been employed to assist in rush periods.

8. Vacancies on state committees. As physicians who have been members of committees have entered the war service, care has been taken to fill their places on the various committees in order that the problems which come before the various committees shall receive as much consideration as possible with as little disruption as possible due to the war.

9. Federal income tax on accounts receivable. An attempt is being made in the Ways and Means Committee of the House to pass an amendment to the present federal income tax statutes which would do away with the inequities that now burden a taxpayer who makes his returns upon a cash receipts and disbursements basis. At the present time "income accrued to the date of a decedent's death must be included in the return for his last income tax period. The 'bunching up' of income that may occur under this provision can work a severe hardship, as the income of the decedent may in effect be artificially raised to a much higher surtax bracket. Under this provision a doctor's share of the fees from cases pending at his death must be included in the income tax return for the year in which his death occurs even though such fees may not be collectible until years later."

The proposed amendment seeks to eliminate the present method of taxing such income in favor of a method that taxes the income of persons who actually receive it. The tax adviser to the Secretary of the Treasury, Randolph Paul, who recommends the passing of the proposed amendment upon behalf of the Treasury Department, states:

> "Thus, the income would be made taxable to the estate or to the heir or legatee as the case may be. It is also suggested that this change

be made retroactive to all open years under proper safeguards insuring payment of the tax by the recipients of income in such years."

Contact has been made with Representative John W. Boehne from Indiana who is a member of the Ways and Means Committee, who expressed himself as being wholeheartedly in favor of such an amendment.

10. American Law Institute proceedings. The Executive Committee wishes to take this opportunity to thank Kurt Pantzer, whose father was one of Indiana's leading surgeons, and Alan Boyd, who attended the American Law Institute held recently at Philadelphia, for the support they gave Mr. Tom McDavitt, of the Bureau of Legal Medicine and Legislation of the American Medical Association, in the presentation made by Mr. McDavitt of the position of the American Medical Association on questions which came before the American Law Institute in considering its suggested revised Code of Evidence.

11. Civilian defense. Being of the opinion that the civilian defense activities are separated from those of Procurement and Assignment Service, the committee set up its special civilian defense organization, headed by Dr. Henry S. Leonard, of Indianapolis. Doctor Leonard represents the medical profession of the state upon the Advisory Medical Council of the Indiana State Defense Council. Dr. John Ferree, health officer of Indiana, is civilian defense medical director of the state.

Dr. W. D. Little, chairman of the Committee on the Study of High School Athletics, was appointed a member of the Advisory Board for the physical fitness program of the Indiana State Defense Council, representing the profession. This advisory board is made up of individuals representing the professional lay organizations which have as their chief interest the health and physical fitness of the citizens.

B. THE JOURNAL

1. Printing costs. The cost of publishing THE JOURNAL for 1942 will be about 22¼ per cent greater than in 1941.

2. Advertising. In order to absorb in part this cost, upon the recommendation of the Indiana State Medical Association, the Cooperative Medical Advertising Bureau recommended that an increase be made in the advertising rates of THE JOURNAL of the Indiana State Medical Association. However, the advertisers now in THE JOURNAL will receive the benefit of the old rate until 1943, the new rate applying only to new contracts received in 1942. The committee recommended that rates for professional cards remain unchanged.

A comparison of advertising revenue for the first six months of 1942 with previous years is given:

First six months	*1939*	*1940*	*1941*	*1942*
Bureau agency	$2,571.24	$2,376.19	$2,570.30	$2,558.89
Direct	2,569.75	2,163.65	2,400.40	2,554.27
Totals	$5,140.99	$4,539.84	$4,970.70	$5,113.16

The Executive Committee urges that each member of the association actively cooperate in supporting the advertisers of THE JOURNAL. As you can see, the advertisers contribute greatly to the support of your magazine and the Executive Committee urges you to support those advertisers in return.

3. Pages printed in 1941 in comparison with other years:

Year	*Reading Pages*	*Percent Read.*	*Adv. Pages*	*Percent Adv.*	*Total*	*Average Pages Per Issue*
1933	634	64	358	36	992	82
1934	604	60	408	40	1012	84
1935	704	62	428	38	1132	94
1936	680	59	472	41	1152	96
1937	674	57	514	43	1188	99
1938	728	59	504	41	1232	102.6
1939	730	59	502	41	1232	102.6
1940	736	59	506	40	1242	103.5
1941	728	58	506	41	1234	102.8

C MEDICAL DEFENSE ACTIVITIES

1. Malpractice cases. A year ago at the time of this report, September 1, 1941, the following thirteen cases were pending before the committee, two of which were closed during the year, leaving eleven cases still pending:

Case No. 200—Suit filed February 12, 1932. Pending.

Case No. 203—Suit filed August 22, 1934. Defendant deceased, but case still pending.

Case No. 216—Suit filed March 16, 1936. Change of venue on demurrer of plaintiff. Demurrer to be argued at a time to be set later.

Case No. 225—Suit filed July 28, 1938. Pending.

Case No. 226—Suit filed November 5, 1938. Suit withdrawn and another filed January 16, 1939. Pending.

Case No. 227—Suit filed April 7, 1939. Pending.

Case No. 230—Suit filed November 18, 1939. Pending.

Case No. 232—Suit filed April 11, 1940. Pending.

Case No. 234—(Closed) Suit filed September 2, 1940. Case venued. Motion to dismiss August 30, 1941, sustained and case dismissed at plaintiff's cost. Expense, $100.00, paid October 10, 1941.

Case No. 235—(Closed) Suit filed September 12, 1940. Case dismissed November 27, 1941. Expense, $100.00, paid December 17, 1941.

Case No. 237—Suit filed December 16, 1940. Pending.

Case No. 238—Suit filed April 18, 1941. Defendant filed motion to make complaint more specific, on which the Court has not yet ruled.

Case No. 239—Suit filed May 1, 1941. Pending.

Since September 1, 1941, and up to August 1, 1942, the following three new cases have come before the committee, one of which has been closed, making a total of thirteen cases pending at the present time as against thirteen unclosed cases at the same time last year:

Case No. 240—Case closed August 22, 1941. Expense, $50.00, paid August 22, 1941.

Case No. 241—Suit filed February 7, 1941. Pending.

Case No. 242—Suit filed January 28, 1942. Pending.

2. Medical Defense Fund Statement, from August 1, 1941, to August 1, 1942:

BALANCE, August 1, 1941		$6,180.85
Deposits:		
Dues, 68—1941 members at 75c	$ 51.00	
3,079—1942 members at 75c	2,309.25	2,360.25
Interest on bonds		281.25
		$8,822.35
Disbursements:		
Malpractice fees	$1,100.00	
Salary of Assn. attorney	600.00	
Treasurer's bond	15.00	
Printing	27.17	
Miscellaneous	70.70	
		1,812.87
Balance in Medical Defense Fund checking account, August 1, 1942		$7,009.48

D. CONCLUSION.

Matters to be brought before the House of Delegates.

1. **Refund of dues.** Should dues of physicians who are in the employ of the United States Public Health Service be refunded?

2. **Resolution that only American citizens be eligible to take examinations given by the State Board of Medical Registration and Examination.** Full citizenship is not now a requirement. The Executive Committee recommends that this entire question be placed before the House of Delegates and that the following recommendation be made to the House of Delegates:

"Only physicians who possess full American citizenship shall be eligible to take examinations given by the State Board of Medical Registration and Examination of the State of Indiana."

3. **Tippecanoe County Medical Society resolution to change the By-Laws:**

"WHEREAS, Tippecanoe County Medical Society interprets Section 7, Chapter X of the By-Laws of the Indiana State Medical Association to be in conflict with Section 4, Chapter X in respect to each county society being the judge of its own membership; therefore be it

"RESOLVED, that Section 7, Chapter X, be amended to read, to-wit:

"When a member in good standing in a component society moves to another county in this state, his name, on request, shall be transferred without cost to the roster of the county society into whose jurisdiction he moves, provided the transfer is approved by majority vote of the membership of said society."

4. **Mileage fees.** The Executive Committee recommends that the subject of fees in general and mileage fees in particular be discussed by the House of Delegates. With many physicians in military service it is necessary that some communities be served by doctors living in nearby towns. If customary mileage fees are charged for such services, bills will be greatly increased. The committee believes that it would be well to consider a plan whereby the charges that have been customary in individual communities be maintained during the emergency, irrespective of the fact that the physician would serve that community from the adjoining community and ordinarily would charge a mileage fee. The committee feels that this is a serious problem and should be investigated thoroughly by the House of Delegates.

5. **Employment of physicians by industrial war plants.** The committee also recommends that the House of Delegates discuss the problems that arise in regard to the employment of physicians by industrial war plants. In some instances sub-standard physicians have been employed by these plants due to the fact that the better physicians often refuse to work at the contract price set by these plants. The Executive Committee recommends that the House of Delegates suggest some method to correct this situation.

Respectfully submitted,

Cleon A. Nafe, M.D., *Chairman*,
E. O. Asher, M.D.,
M. A. Austin, M.D.,
C. H. McCaskey, M.D.,
F. T. Romberger, M.D.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

House of Delegates
Indiana State Medical Association

Gentlemen:

During the last year your committee has made strenuous efforts to keep informed as to current events affecting the welfare of medicine and public health. It has divided its work into two scopes of activity:

(1) Contacting those public officials and candidates for office who are apt to have some interest in medical care.

(2) The committee is continuing its program of public relations.

The committee has sent appeals to every county society asking that contact be made with all candidates for public office, particularly legislators, congressmen and township trustees, in regard to their point of view towards medicine and the public health. It has been emphasized that each county society have a friendly relationship with these officials, so that they may be in a position to advise them intelligently.

Your committee has cooperated with the Executive Committee and the Military Affairs Committee in arranging meetings with military authorities and other officials.

Your committee wishes to thank all of you for your whole-hearted coöperation and support.

Respectfully submitted,

NORMAN M. BEATTY } *Co-chairmen*
J. W. WRIGHT }
GEORGE DANIELS
JOHN HEWITT
J. R. DOTY
GEORGE DILLINGER
MILTON POPP
J. S. NIBLICK

BUREAU OF PUBLICITY

House of Delegates,
Indiana State Medical Association.

Gentlemen:

I. ACTIVITIES STREAMLINED

1. War takes precedence. Streamlining its activities to meet the war situation brought on by the Pearl Harbor attack, the Bureau of Publicity has not hesitated to change its routine procedures to meet new conditions. The Bureau feels that the number of regular news releases should be cut during the emergency to essential articles. This curtailment took place immediately after the declaration of war because it was the opinion of the Bureau that in the first place most statements coming from the Indiana State Medical Association should deal with war and war medicine and hence should come from the State Procurement and Assignment Service, and in the second place that insofar as possible the main effort and energy of the headquarters' office and staff should be free to undertake the tremendous and difficult job involved in the procurement and assignment of physicians for the armed forces and yet care for the civilian needs.

2. Survey of League of Women Voters on socialized medicine. Outside of the war work connected with the war emergency perhaps the most important single subject to come to the attention of the Bureau of Publicity was the survey of the League of Women Voters upon "Federal Responsibility for Public Health and Health Insurance." Conferences were held with representatives of the league and the viewpoint of the medical profession in regard to this subject was presented to the officers of the league by the Bureau of Publicity. Several speakers, especially prepared to talk upon the subject of sickness insurance, attended and spoke before various local groups of the league within the state. At the request of the Bureau, Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association, spoke at one of these meetings.

This effort of the Bureau of Publicity in 1942 is merely a continuation of the interest in this matter taken by the Bureau the year before when the study of the League of Women Voters upon this subject was first undertaken. Realizing the importance of the league and the impetus that the movement to socialize medicine would gain if the league officially became an advocate, a representative of the Bureau had appeared in 1940 before the Board of Trustees of the American Medical Association and discussed the importance of this survey with that body. As a result of the year's study the National League of Women Voters advocated the following in regard to health:

> "Development of a public health policy which will ensure federal, state and local responsibility for the promotion of public health services." (No mention of socialized medicine or health insurance.)

The Indiana League has adopted the following plank in regard to health in its program:

> "Voluntary non-profit hospital insurance."

II. DUTIES OF THE BUREAU

1. Advisory Committee to Auxiliary. In addition to preparing and distributing releases to the newspapers and supplying speakers upon request for medical societies and lay organizations, one of the important duties of the Bureau is to act as an advisory committee to the Woman's Auxiliary. The Woman's Auxiliary proposed the following state projects, which received the approval of the Bureau of Publicity:

1. General benevolent fund.
2. Work toward getting bed in preventorium.
3. Student-aid fund for either son or daughter of doctor's family.
4. Gather information for history of pioneer doctors in state.
5. Give credit for hours of volunteer work in national defense, community, or emergency war work.
6. Cooperation with the League of Women Voters in their study program of socialized medicine.

The Bureau particularly thought that special emphasis should be put upon project No. 6.

An outline in regard to the "Objectives and Plans of the Woman's Auxiliary" was submitted by the president of the Auxiliary to the Bureau. The Bureau approved this outline in general but recommended that an item in regard to the "observance of doctor's day, May 30" might well be omitted from the program because of the action of the House of Delegates of the American Medical Association several years ago declining to approve of such a day.

2. Historical work. Among the duties of the Bureau of Publicity is that of sponsoring interest in Indiana medical history. The program chairman of the Woman's Auxiliary submitted the following proposal in regard to the compilation of medical history in the various counties:

"Pursuant to the Auxiliary's plan to compile histories of doctors who have practiced in the various counties, questions are coming to me asking for sources of information. These are the ones I can suggest just out of my own small mind:

1. Records in County Clerks' offices of physicians who obtained licenses in 1897.
2. Old county histories.
3. Church, cemetery records.
4. Wills, deeds.
5. The rather modern archives of county medical societies.

"Is there a book or are there books of any authentic histories in the archives of the state association?

"How may data from these be obtained?

"Are there any records available from the State Library?"

The Bureau of Publicity heartily approves the Woman's Auxiliary taking an active interest in historical matters and authorized the following letter which was sent to the program chairman of the Woman's Auxiliary:

"I know that the Bureau of Publicity will be most pleased to receive your letter of December 7 in regard to your suggestion as to how the Woman's Auxiliary can go about compiling information for medical histories.

"Two good books on medical history in Indiana are 'Medical History in Indiana,' published by J. W. H. Kemper, M.D., in 1911, and the biographical sketch of Doctor William Henry Wishard, the father of the late Doctor William N. Wishard.

"In addition to the above, Doctor Thurman B. Rice, of Indianapolis, has written a most interesting biography of Doctor John N. Hurty who served for so many years as health officer of Indiana.

"Doctor Burton D. Myers, who is only recently retired as dean of the Indiana University School of Medicine at Bloomington, I understand has ready for publication a history of medical education in Indiana.

"The Transactions of the Indiana State Medical Association, dating back to 1849, are a most interesting source of information and also THE JOURNAL of the Indiana State Medical Association, starting with its first number in 1908 and continuing up to the present time, of course contains much interesting and worth-while information. We have a set of Transactions and all issues of THE JOURNAL here at the state office, and I believe similar sets are on file at both the library at the Indiana University School of Medicine and the medical section of the Indianapolis City Library.

"Of course there are many county medical society histories and sketches; some of them are very complete and very thorough. Doctor James B. Maple of Sullivan, Indiana, has written a history of the Sullivan County Medical Society, and Doctor Robert Smallwood of Bedford, Indiana, has written the history of the Lawrence County Medical Society.

"I will bring your letter to the attention of the Bureau of Publicity and if the members have any other suggestions I will let you know."

The Bureau suggests further that perhaps the Woman's Auxiliary can be an aid to the historian of the Indiana State Medical Association in compiling data, and it held several meetings with the historian of the association to discuss this matter of medical history. The historian of the association appeared before the Bureau and discussed the problem of writing a medical history of Indiana and collecting material of historical medical interest. He spoke of the work that was done by the Indiana Association of the History of Medicine. He spoke also of the fact that in order to do the work properly a person trained in historical research and in historical values should be employed by the association. Both the historian and the Bureau felt that there was real merit in undertaking the systematic collection of material and preparation of articles dealing with Indiana medical history. However, due to the outbreak of war, both the Bureau and the historian felt that under the existing circumstances the inauguration of such a plan should be postponed for the duration of the war but suggested that after the war some definite plan for the collection of historical material should be set forth and followed.

3. Representation at American Public Health Association. The executive secretary was invited to appear on the program upon "Public Health Education" at the annual meeting of the American Public Health Association held at Atlantic City October 11 to 14, 1941. The Bureau approved of the participation of the executive secretary in this conference. He took part in the discussion upon "The Participation of Professional Groups in Health Education," discussing particularly state medical society press relationships under the title, "The Care and Feeding of Newspaper Men."

III. NEWSPAPER PUBLICITY

1. Polio releases. In past years, upon certain occasions, the Bureau has prepared and released series of articles upon heart disease, tuberculosis, periodic health examinations, pneumonia, cancer, et cetera. As there was a great deal of poliomyelitis in the state during the year and as the newspapers carried articles from many different sources in regard to this disease, the Bureau undertook to prepare a series of articles dealing with poliomyelitis.

The articles that appeared in the July 26, 1941, issue of THE JOURNAL of the American Medical Association, and the brochure on poliomyelitis prepared by the Division of Services for Crippled Children of the State Department of Public Welfare, were the basis for these releases. Various pediatricians were assigned the duty of summarizing and preparing this material which resulted in the following three articles:

"The Spread of Poliomyelitis (Infantile Paralysis)."

"Care of Acute Poliomyelitis (Infantile Paralysis)."

"Care of Patients Paralyzed by Poliomyelitis (Infantile Paralysis)."

2. Articles released by the Bureau during the year follow:

The Spread of Poliomyelitis (Infantile Paralysis).

Care of Acute Poliomyelitis (Infantile Paralysis).

Care of Patients Paralyzed by Poliomyelitis (Infantile Paralysis).

Annual Session of Indiana State Medical Association at Indianapolis, Indiana (10 releases).

War and Holiday Health.

Midwinter Council Meeting.

Secretaries' Conference.

3. Tippecanoe County Medical Society does publicity work. The Bureau particularly wishes to compliment the Tippecanoe County Medical Society for the splendid work it is doing in supplying publicity material for its local press. Similar programs have been published in the past and in some cases are continuing in Lake, Vigo, St. Joseph and Marshall counties.

IV. MEDICAL MEETINGS

Speaking engagements filled during the year before lay and medical groups follow:

1941

October 15—Parke-Vermillion County Medical Society, Clinton.

October 23—Indiana Chapter of the Catholic Hospital Association of the United States and Canada, Batesville.

October 31—Indiana League of Women Voters, Kokomo.

October 31—Indiana State Conference on Social Work, Indianapolis.

November 5—Wabash County Medical Society, Wabash.

November 19—League of Women Voters, Logansport.

November 19—Morgan County Medical Society, Martinsville.

November 21—Woman's Auxiliary to the Tippecanoe County Medical Society, Lafayette.

December 11—LaPorte County Medical Society, LaPorte.

1942

February 10—Fayette-Franklin County Medical Society, Connersville.

February 18—Parke-Vermillion County Medical Society, Clinton.

March 18—Parke-Vermillion County Medical Society, Clinton.

March 19—Board meeting of Woman's Auxiliary to the Indiana State Medical Association, Indianapolis.

March 20—Cass County Medical Society, Logansport.

May 20—Parke-Vermillion County Medical Society, Clinton.

V. FINANCIAL STATEMENT OF THE BUREAU

The expenditures of the Bureau from August 1, 1941, to August 1, 1942, follow:

Clippings	$100.09
Postage	61.57
Stationery and mimeograph supplies	71.83
Printing	13.50
Miscellaneous	14.37
Total expense	$261.36

Respectfully submitted,

H. G. Hamer, M.D., *Chairman*,
F. W. Taylor, M.D.,
F. M. Gastineau, M.D.

COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS

(As no business has been transacted through this committee during the year, the committee has no report to make at this time.)

HISTORIAN

House of Delegates,
Indiana State Medical Association

Gentlemen:

Upon my appointment as historian of the Indiana State Medical Association I informed the executive secretary that it would be practical to accept this position only if funds were available for a part-time secretary, inasmuch as the work would be worth while only if it were done systematically by someone with abundant time. Since the present military situation makes it impossible to allot funds for purposes not absolutely necessary, I expect to contribute for publication in The Journal occasional articles of medico-historical interest, which do not directly concern themselves with medicine in Indiana. It is hoped that eventually the office of historian can function in such a way as to paint a satisfactory picture of the development of medicine in our Hoosier state.

Respectfully submitted,

Edgar F. Kiser, M.D.

THE JOURNAL

House of Delegates,
Indiana State Medical Association

Gentlemen:

Whereas 1942 is the close of the ten-year period since the present set-up came into being, it might be well to mention the progress that has been made with your magazine.

The number of pages published seems always a matter of interest; in 1933 we published a total of 634 reading pages; in 1941 the number reached 728. The current year will show some increase over that figure.

In 1933 we had 358 pages of advertising; in 1941 we had 506 pages. Currently, there is some falling off in our advertising, due of course to war conditions. And it is expected that as the war goes on there will be a further decrease, which may make it advisable to cut down in the matter of pages.

Printing costs for 1942 are higher than in the previous year by almost 20 per cent, and this probably will be increased during the coming year.

We have continued to use color on our front cover, believing the extra cost to be a good investment; it not only adds to the attractiveness of the magazine but affords opportunity for color advertising on the cover pages.

In January, at the midwinter meeting of the Council, it was announced that THE JOURNAL would be "all-out for the duration." We believe we have lived up to this promise. THE JOURNAL for 1942 might well be termed a "WAR JOURNAL." Our editorial pages have reflected the activities of the parent organization at all times and we like to believe that this editorial comment has had at least a minor part in placing Indiana well at the top of the heap in the matter of enlistments in the armed services.

We have had few special numbers during the current year, the two outstanding issues being the Conservation of Vision Number in May and the War-Industrial Number in August. Both these special numbers have attracted wide attention; a columnist in an Indianapolis paper gave his whole column to a discussion of this number.

We believe the scientific section of the magazine has maintained the high standard that has been ours for many years, and it is hoped that even though hundreds of our members are in the service we may be able to present the same quality of material in 1943.

The JOURNAL staff is to be given high credit for making it the success it has been—we refer to the members of the staff at headquarters. The Managing Editor, as you well know, has spent more than half his time this year in Washington and elsewhere, on matters pertaining to the Procurement and Assignment Service. For years we had depended upon him for the many details that only he seemed able to supply, but during the past year we have had to "catch him on the run" in order to continue to avail ourselves of his wholesome suggestions and counsel.

To the new Assistant Editor, Miss Nella Rokke, we literally take off our hat; she "broke in" readily and her cooperation has been of the highest sort. The Editorial Board has been consulted on many occasions as to editorial policies and in the matter of using some of the material submitted for publication.

The outlook for 1943 is a bit uncertain; THE JOURNAL will, of course, carry on although some changes may have to be made due to the already mentioned increases in the cost of printing, etc.

We have again had the pleasure of looking over practically all the state medical publications of the nation and have followed their 1942 fortunes with an observing eye; we note that they, too, have the same problems, some already having cut down the number of pages printed.

We take this occasion to thank the JOURNAL staff for their assistance in making our magazine an outstanding publication and the members who have so generously contributed what we believe to be an unusual amount of very much worth-while material for our publications.

THE JOURNAL makes no apologies for its appearance during the past year and pledges an ever-improving program for the coming year.

Respectfully submitted,

E. M. SHANKLIN, M.D. *Editor.*

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

(As no business has been transacted through this committee during the year, the committee has no report to make at this time.)

COMMITTEE ON NECROLOGY

House of Delegates,
Indiana State Medical Association.

Gentlemen:

This committee has no report to make at this time as it publishes annually in the earliest possible number of THE JOURNAL a list of all physicians who have died in the previous year.

Respectfully submitted,

JAMES B. MAPLE, M.D., *Chairman,*
W. D. INLOW, M.D.,
C. N. COMBS, M.D.,
W. W. DUEMLING, M.D.

COMMITTEE ON SECRETARIES' CONFERENCE

House of Delegates,
Indiana State Medical Association

Gentlemen:

The annual Secretaries' Conference was held January 25, 1942, at the Indianapolis Athletic Club, Indianapolis, with the largest attendance in the history of the conference.

General Lewis B. Hershey, director of the Selective Service System; Lieutenant Colonel Samuel F. Seeley, executive officer of Procurement and Assignment Service for Physicians, Dentists and Veterinarians; representatives from Fort Harrison, Indianapolis, Indiana, and Fort Hayes, Columbus, Ohio; Dr. E. L. Henderson, Louisville, Kentucky, and many other guests were present.

Dr. R. L. Hane, Fort Wayne, presided at the meeting.

Dr. A. M. Mitchell, Terre Haute, was elected chairman for the coming year.

Respectfully submitted,

A. M. Mitchell, M.D., *Chairman*
E. P. Buckley, M.D.
R. A. Henderson, M.D.
H. H. Dutton, M.D.
W. M. Dugan, M.D.
C. F. Overpeck, M.D.

M-DAY AND VETERANS' AFFAIRS COMMITTEE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Indiana Meets Needs of Armed Forces.

"Mobilization begins with mobilization of thought, public opinion, and psychology, without which no amount of material resources can succeed." This statement is quoted from an article appearing on page 456 of the September, 1940, issue of The Journal of the Indiana State Medical Association.

Many people in Indiana began to become war-conscious for the first time when the Army took their physicians. Much water has gone over the dam since our last report, one year ago. At that time it was predicted that Indiana would be called upon to supply seven hundred physicians by the end of 1942. Meantime the country has found itself at war with two powerful nations which had the benefit of long-range preparation.

War brought about the necessity of rapid expansion of the armed forces, calling for a number of physicians from Indiana slightly in excess of seven hundred. A year ago we predicted that a total of one thousand four hundred physicians from this state would ultimately be needed. That prediction still stands. The number may be reduced by five to ten per cent because of a re-shuffle; the Army is now replacing those medical officers at the moment assigned to administrative duties with non-medical officers.

The needs of the Army had reached such proportions by April of this year that the Surgeon General's Office found it physically impossible to meet them by routine methods. On April 24 the Surgeon General departed from an unbroken tradition and decentralized medical officer procurement, by placing in each state a Medical Officer Recruiting Board, composed of a representative of the Surgeon General's Office and a line officer from the Adjutant General's Office, with authority to commission physicians on the spot at the moment of contact.

Eight Hundred Physicians Will Be in Service. This engulfed us in an avalanche of procedure and voluminous detail comparable to a rolling barrage. Indiana has measured up to what was expected of it. If mistakes have been made, they were inevitable and were in favor of the Army. The magnitude of the program and kaleidoscopic changes in the conception of the tactics to be employed in meeting the emergency summoned all the ingenuity of those engaged in the activity of recruitment. When the board arrived in Indiana there were about 325 physicians in armed service. As of this date, July 22, 1942, the board has commissioned 372 physicians (191 First Lieutenants; 181 Captains; total for general duty 278; total for limited service 94); transmitted to the Surgeon General's Office for determination as to grade and physical eligibility, 101 applications; not disposed of, 20 applications; refused commissions, 7; physically disqualified, 174, or 26%; deferred 71, or 10%; total number of applications processed 777, of which 25 were beyond forty-five years of age. A probable 75 of those whose names have been forwarded to the Surgeon General's Office will be commissioned; of those on file probably an additional 15; making an estimated 462 to be commissioned by the board as of this date, which added to those already in armed services (325) totals 787; to this number must be added an unknown number in the Navy, estimated as 50, plus an unknown number having applied directly to the Air Service, probably 25, making a grand total commissioned or shortly to be commissioned from Indiana of 862 as of July 22, 1942. A few have been commissioned in the United States Public Health Service. When General Hospital No. 32 is activated, probably very shortly, there will be an additional contribution to be accredited to Indiana's quota of 35. By the end of 1942 it is estimated that there will be 925 physicians from Indiana in the service.

Two difficult problems lie ahead of us. First, where and how are we to get an additional 350 to 400 physicians from Indiana by the end of 1945;

or, an additional 125 by the end of 1943, and more likely by this time one year hence. It may be suggested that they will come from new graduates. The answer is that before any considerable number will have been graduated, casualty lists will have begun to mount and replacement needs will have to be met.

The second problem is to provide medical coverage for those communities which have given up more physicians than should have been certified as available until replaced by physically ineligible physicians.

The third problem is predicated somewhat on the second: some authority for and an agency within the state association must be provided to allocate disqualified physicians: (1) to those communities reduced beyond their minimum needs for medical care; (2) to rapidly expanding areas due to an influx of defense population workers; (3) to defense industry, thus releasing to the armed forces a great number of physicians who are physically eligible but who now are declared essential to cover the medical service of defense plants. It is probable that 85 per cent of the medical service of such plants is composed of physicians thirty-six years of age and under, and 75 per cent of that number should qualify physically and be made available to the armed forces. We have no way of knowing how many physicians are employed on the medical staff of defense industry.

One important thing can not be too strongly stressed—in many instances an only physician has been taken from a small town with the understanding that the load would be absorbed by a near-by town. However, the physicians concerned are exercising the old horse-and-buggy prerogative of charging mileage. This creates an unnecessary hardship, is untenable and unpatriotic. Persistence in this practice adds impetus to state medicine, because if we, ourselves, do not remedy this injustice it will be remedied for us.

Many Help Do Job. Whatever has been accomplished in the gigantic task of medical officer recruitment is largely due to the loyalty, co-operation and unflinching sense of duty on the part of the Councilors and eighty-four county procurement and assignment committees representing the ninety-two counties of the state. And, it may be added, scarcely one word as to definite methods of procedure has come from the central office of the Procurement and Assignment Service, other than broad generalizations, or questions in regard to some individual and isolated cases. The county committees have had no easy task. Unstinting has been the helpful service of Doctor Larue Carter of Indianapolis and Doctor E. L. Henderson of Louisville, both of the Fifth Corps Board; Colonel E. C. Jones, Surgeon, Fifth Corps Area, and the members of the Medical Officers' Recruiting Board, Major V. L. Eikenberry, the line officer, representing the Adjutant General, and Major Norman R. Booher, Medical Corps member, representing the Surgeon General, who have done a man's job in a masterly manner. Needless to say we would have arrived at exactly nowhere but for the faithfulness, willingness and efficiency in the headquarters' office of the Indiana State Medical Association. It was characterized by long hours in the office and night-work at home.

One word about grades. When a physician enters service carrying a rank higher than he is qualified to fill through military experience and background, his lack of military orientation makes of him a liability, especially to the Army, and an embarrassment to himself.

The profession of Indiana has demonstrated that it does not propose in the future to be paid in Japanese yen or German marks.

Respectfully submitted,

C. R. Bird, M.D., *Chairman,*
C. C. Crampton, M.D.,
W. M. Miley, M.D.,
M. L. Curtner, M.D.,
A. G. Chittick, M.D.,
Carleton B. McCulloch, M.D.,
Glen W. Lee, M.D.

PERMANENT STUDY COMMITTEE ON HEALTH INSURANCE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

It is to be expected that the declaration of war and the intense activity of mobilization of forces and armaments would largely overshadow considerations of health insurance plans. That is to say, they would overshadow these considerations by state medical organizations to a great extent. The social groups have not failed to realize the significance of the situation and to press their claims as further indications have arisen out of the emergency. All of the tremendous problems associated with the mobilization of an immense army, the expansion of industry, the migration of millions of workers and their families have been revealing in the necessity for increasing the facilities, and particularly the distribution, of medical care. Not only must a sufficient number of physicians and other medical personnel be provided for the military forces, but this provision must not rob the civilian population of necessary personnel. In addition, greatly enlarged industrial areas require augmented physicians. Increased housing projects, the impending risks of epidemics, decreased rural medical population, venereal disease incidence, duties of the Selective Service physicians, extensive nutritional problems and many more are the arguments advanced by the proponents for socialized medical

care. The more vehement cannot see any solution of the problems beyond complete government control of medical practice. The less impetuous, but no less ardent, advocates of prepayment plans for medical care find in these situations additional reasons for their immediate and widespread adoption in order to provide the greatest application of preventive and curative medicine.

Because of these conditions the danger of eventual government control of medical practice cannot be overlooked. It is *real*, and in spite of the splendid efforts of the profession to solve the problems which confront it, one cannot say that it is not imminent. In the face of this threat, therefore, it is extremely necessary that the medical profession bend every effort toward the solution of these problems, not only that our way of practice be preserved now and for the years to come, but that we may be able to turn back to our colleagues, in the armed forces, their inherent right to individual practice when they return.

The reasoning that the present situation makes it more imperative that prepayment health insurance plans be generally adopted is open to considerable argument. These plans have had their greatest impetus during the period of economic depression, a situation which cannot be said to exist today. After several years of observation of the trials and experimentations with prepayment health insurance plans, one is again forced to the conclusion that they still have to be sold to the public. The urge for their adoption comes principally from social groups and workers, while the ultimate beneficaries are still hesitant about their value. This is repeatedly borne out in instances where industries have adopted such insurance with premium pay roll deductions. When illness strikes the worker he finds that something for which he has been paying and which he has been led to believe will fully cover his expense fails to do so. Too often the indemnifying feature is unsatisfactory in that the funds which are supplied for services rendered are appropriated by the worker for other purposes. *Up to date there has been no plan advanced or in operation that can be said to be satisfactory to all concerned.*

It is true that many medical societies have endorsed the principle of prepayment health insurance. Michigan, California, Oregon, Washington, New York, Pennsylvania, New Jersey, Massachusetts, Ohio, and Utah either have plans in operation or in process of development. Some ten other state societies have endorsed the principle. However, Michigan alone can be said to be operating on a state-wide basis in such a manner as to give a clear concept of the values and disadvantages of such forms of insurance. The values so far disclosed are not entirely convincing. However, their surgical coverage feature has met with considerable acceptance. None of the other plans so far adopted or in operation have acquired any significant membership. The reasons advanced for this have been given as "limited scope of service; excessive rates in relationship to income limits insisted upon; control by a restricted group; and conflicts apparent within the controlling agency." The fact remains, however, that the people themselves are not wholly convinced of the benefits to be derived from these plans, nor is the profession itself converted to the idea. Since the incentive for adoption of such plans must be the widespread distribution of adequate medical care at a lower cost, they can only be predicated upon the basis that a sufficient number of those accepting the insurance will remain well in order to pay the costs for services to those who become ill. So long as they remain well it has been a difficult problem to convince the people that they should subscribe to such plans. To this extent these plans, up to the present time, may be said to be unsuccessful. Whatever growth they may have experienced, whether of the industrial, medical-society, hospitalization, or commercial type has been due chiefly to compulsion through pay roll deductions for premium payments. This is not to indicate that such measures are without value either to the individuals or the success of the plans, but it does indicate an unwillingness on the part of the people themselves to accept these plans unless pressure is brought to bear.

In the light of present and past observations it does not appear entirely evident that the advocates of these plans are only activated by a desire for widespread medical care. It appears that prime consideration is given to the factor of lower cost. The argument that lower cost in itself will result in a more universal type of medical care has not been borne out in the experience of the plans so far in operation. It has resulted only in a *lowered cost* of medical service supplied to a *limited number*. The comprehensive national health program advocated by the A.F. of L. and C.I.O. has resulted in considerable activity on the part of their local and state organizations to formulate plans for sickness insurance on a low cost basis. Here, particularly, the factor involved becomes the cost basis and not the quality of medical service. No better analysis of this has been offered than that by Dr. F. S. Crockett before your House of Delegates in 1940. He said: "There is no logical limit or stopping point to under-bidding except the financial ruin of the competitors. No matter what the group leader says, the individual of the group wants the best medical service, not the cheapest." And again: "It is difficult to understand the workings of a mind which organizes one group for the primary purpose of improving working conditions and increasing wages, while asking another group to render service for less than the recognized value of that service and threatening a price-cutting assault through the hiring of doctors brought in presumably from other localities. I believe labor itself has a name for that."

The adoption by the C.I.O., at their annual meeting in Detroit, of resolutions that specifically support the principle of "insurance for medical care on a federal basis covering all persons, free medical care for those who cannot afford insurance, cash benefits for temporary disability to workers, the construction of needed hospitals in rural and urban areas throughout the country, and the development of organized medical groups, under governmental supervision, to insure the delivery of modern medical service of high quality . . ." reaches a new high. They offer to assist in the formation of medical cooperatives and nonprofit medical insurance plans, and insist on participation in the control of any such recommended plans. Their resolution and offer is recorded without comment.

To what extent the commercial companies are meeting with success is not available. However, it is evident that theirs must be the greatest, if any is shown, since medical society plans are too limited in scope at the present time. There is much justification in their argument that insurance, of whatever kind, is a field properly within their jurisdiction and that nonprofit plans based on any insurance precept have no place in our democracy. Because of existing insurance laws in many states, it remains legally impossible to dispute this. In those states which have passed enabling acts and which have seen the institution of such plans it is still doubtful if they can offer as much as those plans provided by regularly constituted insurance companies, to say nothing of the grief associated with their adoption and management.

Indiana has wisely elected to refrain from taking any "new action or attitude concerning the supply of medical services by contracts or hospitalization prepayment plans"—wisely, because present experience has not justified the adoption of measures to promote, legally or economically, the institution of such plans. Therefore, your committee again recommends study and observation of events in this connection.

We have previously recommended, and we again recommend, that a committee be appointed or delegated to review and assemble all of the best features of existing plans and to combine them in one plan for presentation to the Council. After due consideration and approval this plan should be presented to one or more commercial insurance companies for consideration and underwriting. If found acceptable, the plan should then be endorsed by the Association and its provisions made available to the public through the insurance company or companies determined upon.

Hospitalization insurance has shown material growth, both of the voluntary nonprofit plans and the commercial plans. This coverage has received the general endorsement of the medical profession and no doubt will continue to do so. The frequent efforts of the social-worker groups to tie up or include medical services, of various sorts, in promoting their plans will not meet with support from organized medicine. So long as they maintain the provision of coverage for the risk of hospitalization alone, they may expect the cooperation of the profession.

Out of the chaos engendered in a nation at war one can expect that great changes will come affecting all of us. Whether or not this means a decided alteration in our methods and manners of practice remains to be seen. To our mind, however, it represents the greatest threat confronting us. Therefore, it seems necessary to again charge the medical profession with the obligation of meeting the problems which confront us with a determined spirit to solve them in the way that will offer the greatest benefits to the people and to our country and will reflect the dignity, sincerity and honesty of our profession.

Respectfully submitted,

N. K. Forster, M.D., *Chairman*,
L. W. Elston, M.D.,
S. L. Johnson, M.D.,
A. C. Yoder, M.D.,
Clay Ball, M.D.,
M. V. Kahler, M.D.

COMMITTEE ON STUDY OF HIGH SCHOOL ATHLETICS

House of Delegates,
Indiana State Medical Association

Gentlemen:

For about ten years the members of this committee have emphasized the need for thorough physical examination of those boys who participate in high school athletics. At the same time we have not been very much concerned about the dangers of such things as three games in one day, excessive competition, et cetera. We still feel that competent and careful physical examination of these boys is the thing of paramount importance. Not only does this prevent harm being done some youngster who is ill and should be protected, but it finds those other young men who are in need of special attention.

Competitive high school sports have made available a vast number of young men who are coördinated and responsive to almost any sort of specialized training. Competitive sports have developed initiative and resourcefulness. It is true that this training has been restricted to those who have taken advantage of it. Many others have taken part in non-competitive sports and games. A comparative few have not been interested and have failed to receive any benefit from the high school athletic program—since they were not interested and the program was not compulsory.

It is probably safe to predict that, in the future, more will be demanded of our school authorities. They in turn will demand more of the medical profession. The health and physical development of school children will be guided more closely. This will be our job and it probably will be a long time before we hear any great clamor to the effect that basketball and football are too hard on the boys. There seems to be a definite place in the physical development program for the more strenuous things, and we can be extremely thankful right now for the reservoir of manpower which is so capable of quick training in the combat services.

Those people who have devoted their lives to the athletic program which has been in vogue in this country deserve our everlasting gratitude and should derive much personal satisfaction from the recognition they now are receiving, particularly from the Army and Navy training schools.

Respectfully submitted,

W. D. Little, M.D., *Chairman,*
George S. Bond, M.D.,
H. C. Wadsworth, M.D.,
G. A. Thomas, M.D.,
W. C. Wright, M.D.,
J. E. McMeel, M.D.,
Neal E. Baxter, M.D.,
James H. Crowder, M.D.

COMMITTEE ON MENTAL HEALTH

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Committee on Mental Health has little to report on activities during the past year. On account of war conditions the attention of this Committee has been largely directed to the procurement of medical officers for the armed forces. There has been a great demand for neuropsychiatrists in both the Army and Navy, consequently this group of specialists has been greatly depleted. The Indianapolis group alone has in the past eighteen months been reduced from sixteen to five, which places the burden of teaching in the Medical Department, Indiana University, the staff duties in the Indianapolis City Hospital, and the excess of private practice on this small number. The state hospitals have had a similar experience; the younger members of their staffs are in the military service. Older doctors, or those physically unfit for active duty, have been secured wherever possible to fill this shortage. In the state hospitals it is necessary to have a large staff of male attendants and nurses. Here again is a serious problem; large numbers of these men are now in the armed forces; others will be called in a short time; and still others are attracted by the higher wages and shorter hours of industrial occupations.

The neuropsychiatric practice, both public and private, has probably been more affected by existing conditions than any other specialty. It should, however, be understood that those few of us remaining have no complaints and only wish we were serving in a military capacity.

The country is at war and war is a serious thing, not only for the soldier in the field, but for the civilian at home. In the past our civilian population has been educated to demand the best in medicine and surgery. They have been trained to expect prompt response from the doctor, to have ample hospital facilities and to have the advantage of all modern methods in diagnosis and treatment—and rightly they should have all these things. Now we are living under changed conditions, and the ultra-medical attention enjoyed for so many years is no longer possible. This situation will necessarily have to be understood by both the profession and civilian population. Naturally this Committee has no recommendations to make on this situation; it is simply a state of affairs which must be met.

With the shortage of doctors it becomes necessary to centralize patients. Consequently, more hospital room is needed. Notwithstanding the careful psychiatric examination given men inducted into the military service, a certain number will suffer psychiatric breaks, and under existing regulations many will be returned to their homes for care either in private or state institutions, again increasing the demand for hospital beds.

Scattered throughout the larger cities of Indiana are a number of so-called "nursing homes." Many of these are under excellent management and fulfill an urgent need; others, according to newspaper reports, are a disgrace to a civilized community. This Committee recommends that legislative action be taken to license or certificate such institutions, and that they be under the supervision of state, municipal, or other welfare agencies.

This Committee is proud of the number of Army and Navy medical officers now in active service who belong to the neuropsychiatric group of Indiana. Only a few remain for civilian activities. Too much cannot be expected of this small number, but we are assured they will do their best.

Respectfully submitted,

Larue D. Carter, M.D., *Chairman,*
L. P. Harshman, M.D.,
H. C. Buhrmester, M.D.,
J. H. Hare, M.D.,
Max Bahr, M.D.,
C. L. Williams, M.D.,
E. R. Smith, M.D.,
P. S. Johnson, M.D.

COMMITTEE ON STATE FAIR

House of Delegates,

Indiana State Medical Association

Gentlemen:

Our report this year covers the work done by your committee at the Indiana State Fair in September, 1941. This report was published in the November, 1941, issue of THE JOURNAL of the Indiana State Medical Association, and is as follows:

Attendance at the exhibit sponsored by the Indiana State Medical Association at the 1941 Indiana State Fair eclipsed all records. A constant stream of interested visitors viewed the exhibits, had their blood pressure taken, and were tested on the depth perception machine, a machine to determine their visual fitness for aviation.

The featured displays were those on tularemia, cancer and food fads.

Many questions of a medical nature were written on slips of paper and deposited in a box by the visitors. These were sent to Chicago and were answered by mail by the American Medical Association.

Over 3,800 blood pressure recordings were made, the averages varying from 117/69 in the 15-20 year group to 154/83 in the group over 70.

Other exhibitors in the same building were the Indianapolis College of Pharmacy, Indiana Tuberculosis Association, Indiana State Nurses' Association, American Society for the Control of Cancer, and the Indiana State Dental Association.

A member of the State Fair Committee was assigned to the exhibit each day to answer questions and assist in the examinations.

The blood pressure tests were taken by Malcolm Scamahorn, Vernon Kinzie and Warren Polhemus, who are students in the school of medicine. The depth perception machine was operated by Dr. Wilbur Smith.

Respectfully submitted,

RUSSELL SAGE, M.D., *Chairman,*
E. PAUL TISCHER, M.D.,
A. B. RICHTER, M.D.,
MARY ALICE NORRIS, M.D.,
O. T. SCAMAHORN, M.D.,
ROBERT WISEHEART, M.D.,
MARTHA SOUTER, M.D.,
J. E. FERRELL, M.D.

COMMITTEE ON PREVENTION OF TRAFFIC ACCIDENTS

House of Delegates,

Indiana State Medical Association

Gentlemen:

Your committee contacted Don Stiver, superintendent of state police, early in the year and offered its services in any way that they could be used. We assured him that we would respond in any manner possible and that we stand ready to support all efforts to lower the accident rate in Indiana.

Respectfully submitted,

WILL A. THOMPSON, M.D., *Chairman,*
C. PHILIP FOX, M.D.,
G. W. WILLISON, M.D.,
J. W. MORRIS, M.D.,
J. M. FLEMING, M.D.,
S. H. CROSSLAND, M.D.

LIAISON COMMITTEE OF THE DIVISION OF SERVICES FOR CRIPPLED CHILDREN

House of Delegates,

Indiana State Medical Association

Gentlemen:

The acting director of the Division of Services for Crippled Children, Dr. Howard B. Mettel, has called no meeting of the advisory committee. Dr. Mettel furnishes the following report concerning the activities of the Division of Services for Crippled Children for the past year:

"The progress of the Crippled Children's Division, State Department of Public Welfare, has satisfactorily continued despite the difficulties that have been encountered in maintaining adequate qualified professional and clerical personnel. The case load has become heavier each month, yet the delay in admission of new cases to our treatment center has been held at a minimum. The county welfare departments and the physicians of the state have shown an increased interest in the program by their splendid co-operation.

"All cases now admitted to the services receive complete medical supervision by qualified pediatricians. Complete medical as well as surgical care is given each child. This complete supervision has, at all times, been in operation at the Riley Hospital Center but was not inaugurated in the Fort Wayne and South Bend centers until October, 1941. Fortunately, to date we have not had an occurrence of an acute poliomyelitis epidemic. However, the hospital and field staffs stand in readiness to be of assistance to such cases, upon the request of the family physician, by offering consultative service in the following fields: pediatrics, orthopedic surgery, orthopedic nursing and physical therapy. Our orthopedic nursing and physical therapy staffs have just completed training which will qualify them to administer the Sister Kenny method of treatment. This was made possible through the co-operation of the professional staff of The Indiana University Medical Center. The Administrator of the State Department of Public

Welfare and your Committee wish to thank the medical profession and the administrative officers of the three hospital centers for their complete co-operation.

"Detailed statistical reports of any phase of the Crippled Children's Program are available at the central office upon request directed to your committee."

Respectfully submitted,

I. C. Barclay, M.D., *Chairman*,
Wayne R. Glock, M.D.,
J. H. Weinstein, M.D.,
John H. Green, M.D.,
George Cook, M.D.,
L. A. Ensminger, M.D.,
R. L. Sensenich, M.D.,
L. L. Shuler, M.D.,
G. A. Collett, M.D.

ADVISORY COMMITTEE TO BUREAU OF MATERNAL AND CHILD-HEALTH OF THE INDIANA STATE BOARD OF HEALTH

House of Delegates.
Indiana State Medical Association

Gentlemen:

Report of Committee Meeting March 15, 1942.

MEMBERS PRESENT. The following members of the Advisory Committee of the Indiana State Medical Association to the Bureau of Maternal and Child-Health of the Indiana State Board of Health, met at the Columbia Club, Indianapolis, at 10:00 A. M., on Sunday, March 15, 1942:

Henry F. Nolting, Indianapolis, Chairman.
J. C. Carter, Indianapolis.
W. R. Springstun, Evansville.
C. J. Rothschild, Fort Wayne.

Doctors K. T. Knode, South Bend, and W. L. Porteus, Franklin, the other members of the Committee, were not present.

Other interested persons attending and participating in the discussions were: Howard B. Mettel, M.D., Chief of the Bureau, and Carl P. Huber, M.D., Director of Postgraduate Education in Obstetrics of the State Board of Health. The afternoon session was devoted entirely to discussion of proposed standards for office hospitals, and the following persons, in addition to the above named, were present: George R. Dillinger, M.D., French Lick; Boyd A. Burkhart, M.D., Tipton; John M. Emhardt, M.D., Indianapolis; Miss Gladys Fraser and Miss Esther Farquhar, Children's Division of the State Department of Public Welfare; and Miss Mary Ellen Warstler, Indiana State Board of Health.

Items discussed and actions taken were as follows:

ANNUAL REPORT OF THE BUREAU OF MATERNAL AND CHILD-HEALTH Doctor Mettel, Chief of the Bureau, reported on the activities of the Bureau during the year preceding, in carrying out programs previously adopted and approved by the Advisory Committee. The activities reported on included postgraduate education, maternal and infant mortality surveys, nutrition education programs, dental education program, and operation of the mobile dental unit, premature care program and the maternity nursing services operating in eight counties in the state.

During the discussion of the maternal and infant mortality survey, a motion was made and carried that the Advisory Committee call to the attention of the Indiana State Board of Health the need for a study of the causes of stillbirths.

New programs brought before the Advisory Committee for approval were as follows:

STATEWIDE IMMUNIZATION PROGRAM The Chief of the Bureau of Maternal and Child-Health introduced a program for the immunization of all children over the age of nine months against diphtheria and smallpox, such a program having been urged by Presidential proclamation and by proclamation of the Governor of the State of Indiana. It was explained that under an Act of the General Assembly of 1939, biologics for free distribution could be furnished by the State Board of Health. It was proposed that the programs would be carried out through the services of local practicing physicians, and that they would be reimbursed either by local funds collected, or by the State Board of Health at a rate of five dollars per hour.

The plan approved by the Committee was that families having means should be urged to take their children to their family physician for immunization, and that families unable or unwilling to provide for immunization in this manner would be admitted to the immunization clinics under the plan previously described.

CHILD-HEALTH CONFERENCES The plan for the establishment and conduct of child-health conferences was introduced. According to this plan, these conferences are to provide for regular health examination and supervision of presumably well children for the purpose of educating parents in ways of keeping well children well, and in order to find defects heretofore unknown. According to the plan these conferences are to be conducted by local physicians in co-operation with local public health nurses. Physicians conducting conferences will be reimbursed for their services at a rate of five dollars per hour. It was pointed out that group supervision of certain classes of our population, for the purpose of preventing illness, are increasingly needed during this period of war activity. The program proposed was generally approved.

PRENATAL CLINICS The program for the establishment of prenatal clinics was discussed. The program calls for the establishment of prenatal clinics under the sponsorship of a committee of local medical societies. These clinics are open to persons in the lower income group, or persons unable otherwise to provide for prenatal care, or persons referred by their family physician. Care given in the prenatal clinic is to consist of primarily complete and subsequent routine, prenatal examinations so long as no untoward condition arises. Any abnormal condition discovered at the clinic is to be referred immediately to the family physician and reports of the prenatal progress of all patients will be, likewise, reported to the family physician. Physicians selected by the medical societies to conduct these clinics will be reimbursed at the rate of five dollars per clinic hour by the Indiana State Board of Health.

HEALTH CENTERS AND STATE HOUSING PROJECTS The Committee discussed the establishment of health centers and state housing projects and went on record as being opposed to the establishment of any direct medical care programs, with the exception of such preventive programs as prenatal clinics and child-health conferences. The Committee, however, unanimously recommended that any program of this nature should be decided upon by the local county medical society, in the event that direct medical care is indicated.

TRAINING OF CHILD-CARE VOLUNTEERS The Committee agreed that the need for training of child-care volunteers was not yet imminent, but suggested that the program be kept in mind and moderately publicized in those parts of the state where there would be available competent instructors.

SHOWING OF FILM "WHEN BOBBY GOES TO SCHOOL" A motion was carried that the Indiana State Board of Health be permitted to make direct showings to local groups of the film, "When Bobby Goes to School." This film shows the medical examination of the pre-school well child.

STANDARDS FOR OFFICE HOSPITALS Standards for maternity hospitals operated in connection with the office of a practicing physician, prepared by the Indiana State Board of Health, were presented to the Advisory Committee for approval. Physicians operating this type of hospital were present and permitted to discuss the proposed standards at will. It was pointed out to the Committee that the standards for general hospitals were at times too stringent for the smaller hospital, but that certain standards must be drawn up in order to insure a high standard of care. The standards as proposed were gone over in detail, and several changes were recommended and made. The standards were approved, with amendments.

The motion was made and carried that the Advisory Committee recommend to the Executive Committee of the Indiana State Medical Association that these rules and regulations be offered to the Board of the State Department of Public Welfare for final adoption.

The meeting adjourned at 4:30 P. M.

UNASSEMBLED ACTIVITIES OF ADVISORY COMMITTEE A plan for medical care of wives and infant children of men in the armed services, unable to obtain care, was proposed by the United States Children's Bureau. The plan was presented to the Advisory Committee by correspondence. The plan provides for the allotment of funds to the Indiana State Board of Health to compensate physicians and to pay hospitals for the care of these women and children. The Advisory Committee members each indicated by letter that he believed that the care of families of some of our soldiers might present a serious problem, and proposed that the plan should be given careful consideration. At the time of this writing studies of the need are being made but no action has been taken. However, if such action is taken it will be on the basis of free choice of physician. Consultants, if needed, are to be specialists in their respective field if or when available.

Respectfully submitted,

H. F. Nolting, M.D., *Chairman*,
J. C. Carter, M.D.,
W. R. Springstun, M.D.,
C. J. Rothschild, M.D.,
K. T. Knode, M.D.,
W. L. Portteus, M.D.

AUDITING COMMITTEE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Auditing Committee met at the Indiana National Bank on July 17, 1942, and examined the securities of the Association. These holdings, as listed by the George S. Olive and Company, certified public accountants, in their annual report for the year ending December 31, 1942, and as published in the treasurer's annual report (see page 483), were found to be in order in both the general fund and the medical defense fund.

In addition to the securities listed in the treasurer's report, $2,000 from the general fund of the Association was invested in March, 1942, in United States Savings Bonds, Defense Series G.

Also, since the annual audit was made by the Olive Company, the certificate of interest held on

the Rokeby Apartment Hotel bond has been liquidated, the State Association receiving $30.72 per unit, or a total of $307.20.

Your Committee also examined the cash balances in The Indiana National Bank, The American National Bank, The Fletcher Trust Company, and The Bankers Trust Company, as shown by the bank statements. These accounts consist of the general headquarters' office fund, the medical defense fund, THE JOURNAL fund, and the petty cash fund, respectively.

Respectfully submitted,

O. B. NORMAN, M.D., *Chairman,*
S. T. MILLER, M.D.,
C. C. BITLER, M.D.

COMMITTEE ON CONTROL OF CANCER

House of Delegates,
Indiana State Medical Association

Gentlemen:

The Cancer Control Committee appointed by the president of the Indiana State Medical Association had one meeting on January 25, 1942, in the Indianapolis Athletic Club, Indianapolis. The following members were present: Drs. Padgett, Wiseman, Chambers and Bach. Guests were Mrs. Franzen, Dr. John W. Ferree, and Dr. Don D. Bowers, of the Executive Committee of the Women's Field Army. It voted to continue the work as recommended by the previous committee, with emphasis on diagnostic cancer clinics in the sections of the state where such facilities are not readily available.

The committee approved the appointment of Drs. Stayton and Padgett as members of the Executive Committee of the Indiana Division of the Women's Field Army. The other members of the Executive Committee for 1942 are Drs. Don D. Bowers, Indianapolis; John W. Ferree, Indiana State Board of Health; and Dr. Frank Forry, of the Indiana University Medical Center.

At the request of the Women's Field Army, a State Advisory Medical Committee was chosen. The selection of the members of this committee was based upon their geographical location and interest in cancer work. The members are as follows: Drs. Henry R. Alburger, John G. Benson, G. H. A. Clowes, W. D. Gatch, J. Wm. Hofmann, Edgar F. Kiser, Charles W. Myers, Cleon A. Nafe, Thurman B. Rice, Karl R. Ruddell, M. A. Austin, A. R. Chambers, Stanley A. Clark, George R. Dillinger, D. C. McClelland, A. M. Mitchell, R. G. Moore, Wm. C. Moore, W. C. Reed, James S. Rich, V. Earle Wiseman, G. H. Wisener, E. O. Asher, Morris B. Paynter, W. R. Tindall, and M. B. Gevirtz.

The Women's Field Army has undergone a complete reorganization during this year. The death of Mrs. Isaac Born, who had been so active in the development of the state organization for the past three years, necessitated the appointment of Mrs. Beryl S. Holland, of Bloomington, as state commander. This year's organization of the Women's Field Army was made up of four regions comprising the thirteen medical districts. The state treasurer, Mr. Irving W. Lemaux, resigned and this vacancy was filled by the appointment of Mr. Roger Rogan, president of the American National Bank, Indianapolis. The regional directors of the state are: Mrs. Carl G. Franzen, Bloomington; Mrs. W. W. Barlow, Anderson; Mrs. E. M. Dill, Plainfield; Mrs. Ronald M. Hazen, Indianapolis; and Mrs. Margaret Bippus, Evansville.

The campaign for funds by the Women's Field Army was conducted in April and resulted in a grand total of $9,440.82. The following counties exceeded their quota of $1.00 for each one hundred persons by the amount shown: Madison County, $581.52; Bartholomew County, $64.06; Hendricks County, $32.47; and Miami County, $158.84. Marion County did not reach its quota, but collected $3,569.13, plus $768.09 for a memorial fund. The Women's Field Army maintains a state office with an executive secretary at 362 Claypool Hotel, Indianapolis.

A total of 200,000 pieces of literature was distributed to the public. Twenty-five radio talks were given over the state networks. One of these was a fifteen-minute dramatization of the cancer work in Indiana, with Mrs. Karl Koons, president of the Marion County Medical Auxiliary, and three physicians participating. The new motion picture film, "Enemy X," was shown four times and the film, "Choose to Live," was shown fifty times. Approximately sixty-five talks were made by physicians to lay audiences during the year.

The committee expresses appreciation to the headquarters' staff, the editor of the state JOURNAL, the Indiana State Board of Health, the Executive Committee of the Women's Field Army, the district councilors, the county society secretaries, Dr. Austin, president of the state medical association, and Mrs. Beryl S. Holland, state commander of the Women's Field Army, and her assistants.

In accordance with the House of Delegates' approval of diagnostic tumor clinics, steps have been taken for such organizations, but a report of their accomplishments will not be available until next year. The following suggestions are submitted:

1. The appointment of a cancer control committee in each county medical society, to assume leadership in cancer education and the establishment of diagnostic clinics;

2. The continuation of the work of the Committee on Cancer Control of the Indiana State Medical Association;

3. Emphasis on the slogans, "Health Defense Is National Defense" and "Early Cancer Is Curable."

Respectfully submitted,

CHESTER A. STAYTON, M.D., *Chairman*
A. R. CHAMBERS, M.D.*
E. E. PADGETT, M.D.
W. C. REED, M.D.*
D. C. MCCLELLAND, M.D.
V. EARLE WISEMAN, M.D.
JAMES S. RICH, M.D.*
A. C. BACH, M.D.
M. B. GEVIRTZ, M.D.

* In service.

COMMITTEE ON VENEREAL DISEASE

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Committee on Venereal Disease of the Indiana State Medical Association met Sunday, April 12, 1942, in the Board Room of the Indiana State Board of Health. This meeting was for the purpose of discussing several matters and problems with Drs. John W. Ferree and George W. Bowman, of the Indiana State Board of Health. The meeting was requested by Dr. Ferree.

Dr. Mark Ziegler, of the United States Public Health Service, was present and discussed the position of the Service regarding the controversy concerning the clause, "The circumstances of this examination are such that I believe it should be made without charge," which formerly appeared over the signature of the physician on the serology card of the Indiana State Board of Health. Dr. Ziegler stated that the position of the Service was that no funds controlled by them could be expended to support laboratory service requiring certification of indigency for such service, and that this clause had been construed to have that meaning. Dr. A. S. Giordano, of South Bend, was present and he and Dr. B. W. Rhamy were asked to request the Indiana Pathologists Association to appoint a representative to consult with Dr. F. R. Nicholas Carter, of South Bend, in an attempt to devise a new clause for the serology card that would meet the approval of the Public Health Service. Dr. Ferree and Dr. Bowman expressed a desire to co-operate in formulating this clause, which Dr. Ferree would then submit to the Public Health Service.

As the part of the medical profession and health officials in the control of venereal disease for the protection of the armed forces and the civilian population, it is urged that especial vigilance be maintained to promote diagnosis, treatment and control of cases, as well as complete reporting and careful follow-up of infectious cases and sources.

Local health authorities are advised to assume and enforce their powers to require that all cases rejected by Selective Service by reason of venereal disease be placed under proper medical supervision.

Provision for the hospitalization of infectious or active cases of venereal disease and pre-psychotic central nervous syphilis should be made, utilizing existing available facilities at the discretion of the constituted health authorities. It is deemed unwise to erect or procure hospitals or detention institutions for the exclusive use of venereal cases.

The reporting of cases of venereal disease by the attending physician remains a problem. Methods calculated to correct this serious condition were discussed. Payment in any form for the performance of this function was considered inadvisable. It is believed that the provision of assistance in the control of cases provided by the health authorities and made available to the man in private practice is the preferred method. Provision of this assistance and encouragement of its use should be the first approach.

The distribution of "sulfa" drugs for the treatment of indigent cases was considered. Mr. Harold Darnell, secretary of the Indiana State Pharmaceutical Association, was present for this discussion at the request of the chairman. Owing to the many ramifications of this problem, it is felt that for the present it is best that these drugs be provided and distributed by the local health departments.

The Committee on Venereal Disease commends and has confidence in the state health agencies in their dealing with state public health problems, and recommends that the United States Public Health Service advise them on request, but that the Indiana State Board of Health retain the full determination of matters of policy and execution of same.

Thanks were expressed to Mr. Harold Darnell, and a motion was made to voice our gratitude to the Pharmaceutical Association for its fine spirit of co-operation with the Committee on Venereal Disease. The motion follows:

> "It is moved that the Committee on Venereal Disease of the Indiana State Medical Association express their thanks to Mr. Harold Darnell, secretary of the Indiana State Pharmaceutical Association, and to the members of that association in the various localities in the state for their fine co-operation in the campaign to educate the public concerning the seriousness of and the need for control of venereal disease."

This motion was carried by a unanimous vote.

In the matter of prostitution the committee recommends that the Indiana State Medical Association lend any and all assistance to the elimination of this evil, and that every member be especially diligent in the effort to eradicate venereal diseases wherever found and to do the best job to attain

this result that is possible under the conditions presented to us.

Respectfully submitted,

MINOR W. MILLER, M.D., *Chairman*,
F. R. NICHOLAS CARTER, M.D.,
B. W. RHAMY, M.D.,
E. O. NAY, M.D.,
W. P. MORTON, M.D.,
L. E. DUPES, M.D.,
V. J. CHATTIN, M.D.,
LOWELL GREEN, M.D.

COMMITTEE ON INDUSTRIAL HEALTH

House of Delegates,
Indiana State Medical Association

Gentlemen:

As this report is being written, your chairman has at hand a crisp copy of notification of commission in the Medical Division of the U. S. Army Air Corps (after six months' effort to get in) and will doubtless be on "tour of active duty" by the time this report reaches the House of Delegates.

In view of the disruption of programs and committees on every hand due to the war, and the absence of any spare time at all for most of us, a regular meeting of this committee has been deferred until the state meeting in order to conserve time and expense. Our program is well developed and is being carried out quite well under existing circumstances. Again, due to the war, our annual postgraduate assembly was discontinued this year, thus depriving us of an important field of activity in our program. Increased tempo in all lines of practice would not permit attendance at postgraduate assembly for the duration. THE INDIANA STATE MEDICAL JOURNAL was the first in the United States to publish an Industrial Health Number and this is being repeated this year with the August issue, which we would specifically call to the reading attention of every doctor.

Review of the progress and expansion of the program of this committee during the last three years (see reports *The Journal of the Indiana State Medical Association*: October, 1940, Page 575; September, 1941, Page 505) shows that at present Indiana has one of the most comprehensive programs on industrial health of any state in the nation, and having to her credit several "firsts" in program and accomplishments. This is best illustrated by a nation-wide survey published by the Council on Industrial Health of the American Medical Association which showed Indiana fulfilling eleven out of twelve requirements of the Council, with other states (individual) fulfilling ten, nine and eight, respectively. The only one unfulfilled was that of establishing a Section on Industrial Medicine in our state medical meetings. While this may be a desirable goal in the near future, it is the opinion of this committee that for probable lack of attendance at such a section at this time, due to insufficient interest and demand, present efforts should be directed to the general scientific part of the program, with the establishment of a special section later if warranted. Reasons are two-fold: (1) The bulk of this work at present falls to the general practitioner; (2) through wider contact with these men to create interest in this phase of medicine.

PROGRESS REPORTS

1. One entire meeting with program devoted to industrial medicine reported by various county societies. Madison, Lake and Marion counties report these meetings as among the highest in interest and attendance for the year.

2. Establishment of Industrial Health committees in county societies representing the bulk of the industrial areas of the state.

3. Senior medical students to have additional work on industrial skin diseases, with emphasis on medicine and surgery as they pertain to industry.

4. Physicians reported 360 cases of occupational diseases to Bureau of Industrial Hygiene 1941-42. Industrial skin diseases comprised 310, or 89%, of reported cases.

5. Statistically, twelve field studies were indicated from the 360 reported cases.

6. Letters to industrial workers (through employers) to be posted on bulletin boards have been distributed throughout the state, emphasizing the importance of being on the job every hour of every day through proper food, rest and recreation, and the utilization of preventive health measures and safety rules and protective equipment.

7. Plans for industrial health speakers on state medical program.

8. Plans for industrial health exhibit at state meeting.

In view of the vital need for maximum production in the war effort, the importance of the work of this committee is self-evident. We renew our plea to industrial surgeons, as well as the general practitioners who see most of these cases, to discourage and prevent undue absenteeism and stimulate cooperation of employees at every opportunity. At this time it is most important that each county society appoint a Committee on Industrial Health and endeavor to devote one entire program during the year to this all-important phase of medicine. This was emphasized in our part of the program at the State Secretaries' Conference in February, and we ask each county secretary to see that such committee is appointed and the names sent to Mr. Tom Hendricks. Through our educational program we anticipate a large increase in reports of industrial dermatoses and diseases, and where requested a study made by the Bureau of Industrial Health to determine and remove the causative agent. (Numerous outbreaks have been controlled throughout the state by this method.)

In view of discontinuing the annual postgraduate assembly, we feel that educational efforts could be well carried out by the various district officers

devoting a considerable portion, if not all of their programs at their meetings, to industrial and war medicine. Medicine today, as never before, is in the spotlight and has an immense responsibility to fulfill to the public as well as the nation. It shall be done, and let Indiana doctors lead in this effort.

Respectfully submitted,

C. V. Rozelle, M.D., *Chairman*
Roy Geider, M.D.
V. E. Harmon, M.D.
L. S. McKeeman, M.D.
A. G. Kammer, M.D.
J. C. Burkle, M.D.
Don Kelly, M.D.

COMMITTEE TO STUDY CULTISTS AND IRREGULAR PRACTITIONERS

House of Delegates,

Indiana State Medical Association

Gentlemen:

This committee has had no reason to change its views in the past year regarding the method of dealing with the problem of cultists and irregular practitioners. While the activity which has taken place in the past two years has been commendable and effective to a degree, it is obvious to all who are familiar with the problem that adequate control of the matter will depend first upon a legally authorized registration of all who are engaged in the healing arts, and second, upon a legally constituted agency with adequate funds to enforce the laws of the state.

This committee feels that the way to achieve this end is to have an annual registration of all practitioners of every type, involving the payment of a nominal fee. The funds thus collected should be used by the State Board of Medical Examination and Registration for the proper enforcement of the law. Indiana has more than its share of illegal practitioners because other states make it more difficult for them to prey upon the people.

No legitimate doctor should object to such registration and fee when he appreciates what is to be accomplished by such a plan.

Respectfully submitted,

Alfred Ellison, M.D., *Chairman*
Harry Howard, M.D.
C. L. Boyd, M.D.
M. R. Lohman, M.D.
W. A. Shuck, M.D.
W. F. Kelly, M.D.
R. A. Bowman, M.D.

MINORITY REPORT

My constitutents, the Fort Wayne Medical Society, in regular session voted to disapprove the payment of an annual registration fee for physicians. Therefore, I cannot subscribe to the report of Doctor Ellison, except insofar as approving the activity which has taken place in the past.

M. R. Lohman, M.D.

COMMITTEE ON INDIANA INTER-PROFESSIONAL HEALTH COUNCIL

House of Delegates,

Indiana State Medical Association

Gentlemen:

Your Committee on the Indiana Inter-Professional Health Council met with the other members of the council December twenty-second of last year, the purpose of the meeting being to reorganize.

Dean Glenn L. Jenkins, of the Purdue School of Pharmacy, was elected chairman of the council; Dr. E. E. Ewbank, of the dental group, vice-chairman; and Professor Henry W. Heine continued as secretary-treasurer.

Dr. John W. Ferree of the State Board of Health explained in detail the National, State, County, and City programs under which the Civilian Defense Councils would operate. The council then, through appropriate action, offered to Dr. Ferree, as a representative of the Indiana State Defense Council, full and complete cooperation of our participating groups in the Civilian Defense Work. Members from the participating groups have been appointed on the Civilian Defense Councils.

The problem of sale, distribution, and use of barbiturates was discussed and greater control advocated.

Respectfully submitted,

F. S. Crockett, M.D., *Chairman*
L. H. Allen, M.D.

ANTI-TUBERCULOSIS COMMITTEE

House of Delegates,

Indiana State Medical Association

Gentlemen:

The Anti-Tuberculosis Committee, in reviewing the work of the past year, feels that considerable progress has been made. Three meetings were held by the State Tuberculosis Committee, which were well attended.

A luncheon meeting was held September 24, 1941, at the Claypool Hotel. At this meeting Dr. Benjamin Goldberg, of Chicago, president of the American College of Chest Physicians, read a very interesting paper on tuberculosis control. Sixty members of the county tuberculosis committees attended this meeting. Following Dr. Goldberg's paper a round-table discussion was held and was participated in by many of the committee members.

The state committee held a joint meeting with the Indiana Chapter of the American College of Chest Physicians at the Columbia Club on Sunday,

March 22. At this meeting various problems in regard to the examination of school employees were discussed. Representatives of the State Tuberculosis Association, State Board of Health, and school groups also attended.

Another meeting of the State Tuberculosis Committee was held as a luncheon meeting at the time of the annual meeting of the Indiana State Tuberculosis Association on April 15. At this meeting some of the results of the school examination program were discussed. A resolution was adopted recommending that the students and employees of state schools should have a tuberculin test and positive cases should be x-rayed.

Twenty-two counties have tuberculosis committees, with a total membership of sixty-six. Your committee feels that the anti-tuberculosis work is bearing fruit and that it should be continued. Indiana is one of the leading states in tuberculosis control by organized medicine.

Respectfully submitted,

J. H. Stygall, M.D., *Chairman*
J. V. Pace, M.D.
Robert Staff, M.D.
P. D. Crimm, M.D.
S. R. Combs, M.D.
James McBride, M.D.
M. H. Draper, M.D.
Philip H. Becker, M.D.

COMMITTEE ON CONSERVATION OF VISION

House of Delegates,

Indiana State Medical Association

Gentlemen:

Your Committee on Conservation of Vision has continued its program of dissemination of knowledge to the physicians of the state regarding the preventable causes of blindness. Several talks have been given at the county medical societies on the causes of blindness among the people of our state, together with a discussion of the methods which may be pursued by the general practitioner in the program of blindness prevention.

As we have done during the past several years, our committee arranged the subject matter for the "Conservation of Vision" number of our State Medical Journal in May of this year.

At the American Medical Association meeting in June, one of our members represented us at a meeting which was attended by members of state medical association committees on conservation of vision throughout the country. At this meeting tentative plans were formulated for the development of a large national committee for the conservation of vision, this national committee to number among its membership a representative from each state conservation of vision committee. We are gratified by the progress which has been made toward the development of a national committee since the idea for such a committee originated within our group.

Your Committee on Conservation of Vision is willing to send one of its representatives at any time to meetings of the county medical societies to discuss eye problems and the various phases of the sight conservation program.

Respectfully submitted,

R. J. Masters, M.D., *Chairman*
O. T. Allen, M.D.
J. V. Cassady, M.D.
E. E. Holland, M.D.
E. L. Van Buskirk, M.D.

COMMITTEE ON CIVILIAN DEFENSE

House of Delegates,

Indiana State Medical Association.

Gentlemen:

On January 6, 1942, shortly after my appointment as chairman of Committee on Civilian Defense, a meeting was called by Dr. John W. Ferree, state chief of Emergency Medical Services, to determine the nature and scope of the work expected of us.

Present at this meeting were members of the Emergency Medical Services Advisory Council, named by Dr. Ferree: Miss Helen Teal, R. N., executive secretary of the Indiana State Nurses' Association; H. V. Darnell, secretary of the Indiana Pharmaceutical Association; J. B. H. Martin, administrator of the Indiana University Hospital; Clarence G. Piepho of Muncie, president of Indiana Funeral Directors Association; and Dr. William H. Crawford, dean of the Indiana University School of Dentistry.

The first order of business of the Committee was to contact all County Civilian Defense Directors on the subject of appointment of County Chiefs of Emergency Medical Services in every county in the state. Upon making this appointment each County Civilian Defense Director was instructed to notify immediately the State Chief of Emergency Medical Services of his appointment.

Since the appointment of a Chief of Emergency Medical Services entailed a great deal of co-operation by members of the local society and county defense directors, a letter under date of January 19, 1942, was sent by me as Chairman of Emergency Medical Services Advisory Council through the Headquarters' Office of the Indiana State Medical Association to the secretaries of all the component societies of the State Association concerning the choice of Chief of Emergency Medical Services. Special attention was called in this letter not to appoint, at that time, a county emergency medical advisory council.

Under the date of February 27, 1942, Bulletin No. 1 was issued to all the County Chiefs of Emergency Medical Services advising them of their du-

ties and functions in the community to be served. Below are listed eleven duties that are of the most importance, namely:

"1. To determine the scope of the activities of all official and voluntary organizations which are to participate in the emergency medical program of civilian defense, to integrate these organizations into the comprehensive local program, and to assist them in expanding their activities to the limit of their resources in personnel and equipment.

"2. To assist hospitals in the locality to organize, equip and train Emergency Medical Field units as outlined in Medical Division Bulletin No. 1, 'Emergency Medical Service for Civilian Defense.'

"3. To inspect and select sites for the establishment of Casualty Stations.

"4. To make a spot-map of the locality, indicating the locations of hospitals, appropriate sites for Casualty Stations, and depots for storage of stretchers, collapsible cots, and blankets. The map should indicate the number of Emergency Medical Squads in each hospital. Copies of the map should be supplied to Control Centers, Police and Fire Departments, Health Department, local Red Cross Chapter, State Defense Council, Regional Director, Regional Medical Officer, and all co-operating hospitals.

"5. To plan and establish adequate transportation service for casualties and medical personnel in consultation with local government departments, American Red Cross, and voluntary agencies.

"6. To arrange with the local defense authority for field drills of Emergency Medical Units in collaboration with police and fire auxiliaries, disaster relief and canteen services of the American Red Cross, ambulance transport service, and other civilian defense units.

"7. To make an inventory of hospital facilities in the locality and of the possibilities for their emergency expansion in bed capacity.

"8. To assist the authorities charged with preparing plans for evacuation in making an inventory of hospitals, convalescent homes, sanatoria, hotels, and other structures within a radius of fifty to one hundred miles, which might be used as base hospitals to which patients in city institutions could be evacuated.

"9. To stimulate recruitment of volunteers for Nurses' Aide courses of the American Red Cross, assist the local Red Cross chapter in establishing Training Centers for Volunteer Nurses' Aides at appropriate hospitals, and assist the Red Cross in placing Nurses Aides with hospitals, clinics, health departments, and field nursing services after completion of training.

"10. To stimulate and guide extension of first-aid training by qualified Red Cross instructors as widely as possible among the local population.

"11. To keep the community and particularly the members of the health and medical professions and the participating official and voluntary organizations informed of the plans and activities of the local Emergency Medical Service."

On March 2, 1942, Bulletin No. 2 was sent to all Chiefs of Emergency Medical Services concerning the appointment of County Emergency Medical Service Advisory Council or Committee. Advice was given that all appointments on this Committee should be cleared with the County Civilian Defense Director and should include the following representatives of organizations in that respective county:

1. Pharmaceutical Representative.
2. Hospital Executive.
3. Nursing Representative.
4. Dental Representative.
5. Funeral Director.
6. Red Cross Representative.
7. County Health Officer.

From the beginning it was deemed advisable to have each member of the State Emergency Medical Advisory Committee submit his or her ideas as to the standard to be followed in his or her particular field. Upon submission a discussion by the whole committee was entered into and it was agreed that any question coming from the county societies would be referred to the head of that particular division of the Committee and would be answered authoritatively.

From the time the organization started until the present, some ten bulletins have been sent out besides the Civilian Defense bulletins issued by the National Government.

The Committee has taken part in one radio broadcast and has made two addresses on the subject of Civilian Defense from the Emergency Medical Services' standpoint.

All counties of the state have been organized in making for 100 per cent co-operation.

Since so many of our members have been called into service, the number of doctors in the various counties has been depleted and in many instances the County Emergency Medical Chief has answered the call, depriving the community of his services both as chief and as a physician. New chiefs are being appointed as soon as the present chief leaves for service.

To take the burden off of the overworked doctors who remain, it was thought advisable to appoint a carefully selected layman to assist the County Chief in organizing and administering this Civilian Defense program. Also, County Chiefs should appoint a physician to serve as a medical deputy who would be the medical head in the county in the absence of the chief. Bulletin No. 10, the last issued, sets forth the duties of the lay deputy.

Respectfully submitted,

HENRY S. LEONARD, M.D., *Chairman.*

PNEUMONIA COMMITTEE

House of Delegates,
Indiana State Medical Association

Gentlemen:

At the request of Dr. Ferree, secretary of the State Board of Health, the members of the Pneumonia Committee were given the pertinent facts regarding the distribution centers for anti-pneumococcic serum. It was decided that, because of the very slight demand for serum, it was advisable to discontinue all distributing stations and to dispense directly from the State Board of Health. This will result in practically no loss of time in securing serum and will save much effort and expense in maintaining serum depots.

Since the committee has little or no function under the present conditions, we suggest that it be discharged.

Respectfully submitted,

C. J. Clark, M.D., *Chairman*
A. S. Giordano, M.D.
P. L. Stier, M.D.
R. G. Harkness, M.D.
R. H. Bayley, M.D.
H. C. Wadsworth, M.D.
D. D. Todd, M.D.
W. S. Robertson, M.D.

DIRECTOR OF RESEARCH ON SICKNESS INSURANCE

House of Delegates,
Indiana State Medical Association

Gentlemen:

The war effort has nearly smothered clamor for state medicine, although here and there a voice seeks to turn our presently limited medical service into an argument for extension of publicly-controlled health service. The present subsidence of the officially inspired propaganda ought not lull the profession into a false security. Regimentation of vast groups into industry, which maintains health-services and insurance plans, even though they are necessarily subsidized to keep them solvent, habituates the beneficiaries to easy access to apparently free medical care and they are likely to insist on some form of its continuance hereafter. A recent national poll cast an ominous shadow of future public demands. More than 50 per cent were unequivocally for a publicly-controlled system of medical care. The large number of active medical and hospitalization plans now in existence and under present circumstances growing daily is a fair warning of what is to come unless we go through a financial debacle.

The profession, now numerically inadequate, must help in its own undoing by being unable to maintain its former standards, and its own sacrifices in serving patriotically in the armed services are not likely to be appreciated or remembered since it is part of a common sacrifice. Such scanty information as is available from European services indicate a breakdown of the French, Belgian, Dutch and Norwegian systems with medical men working by conscription among the civilian population. The British plan carries on with the income limit of eligibles so raised that practically the entire population is in the plan, this nearly eliminating the able-to-pay section which kept the panel physician from entirely deteriorating from a professional man to a poorly paid artisan. It is estimated that as incidental to the lessened population from war causes, there will be a great surplus of physicians, making inevitable a scramble for even pitifully paid posts, with the inherent lowering of standards.

In our own country information from widely separated localities shows increasing demand for combined medical and hospital services such as seemed to be inevitable years ago, and yet the maintenance of our system, with its advantages both to the profession and the public we serve, requires separation of medical service and hospital care. From accumulating evidence it seems desirable that we go with the stream, but we shall retain more of our desired methods by strongly supporting cash indemnity plans, preferably of private stock companies or mutuals like our great life insurance companies, permitting the insured to pay his own bills to the doctor or hospital of his own selection.

To support or work with the so-called "non-profit organizations" is to align ourselves with economically unsound plans even though they have altruistic ideals and are proposed by persons of high character who allow enthusiasm and humanitarian motives to substitute for practical judgment and business experience.

The medical care for old-age assistance provided for by the last legislature is in partial operation. Inquiries are being made to the various county boards as to their experience, which are not yet fully replied to. Many county boards adopted plans without knowledge of costs, and some of them now regret their action when they survey costs which rise faster than they expected.

This plan was unnecessary, at least for Indiana, and in effect is clear-cut state medicine. It is predicated on demand and not on need. There is and can be no check other than those set up in the individual case by the professional attendant, which, in the end, amounts to zero.

What the future may bring to the profession depends on the financial status at the close of hostilities. It seems unlikely that the nation can afford a subsidized medical service, yet there will be a demand for it. Many of the social security set-ups will probably have to be dropped because of sheer inability to raise sufficient taxes. Men may again be encouraged to help themselves, and from their inherent generosity aid those in actual and

deserving need. The medical profession, under such circumstances, will achieve most. While war continues we can only do the things required for the national good at the time. But those remaining in civil life may continue their helpfulness to the indigent according to ancient tradition, and by encouragement of preparedness for medical care through private and personal insurance keep away the demand for a governmentally-controlled plan. It appears to be our best hope for maintenance of the system we have created and successfully operated.

Respectfully submitted,

WALTER U. KENNEDY, M.D., *Chairman.*

COMMITTEE ON PHYSICAL THERAPY

House of Delegates,
Indiana State Medical Association

Gentlemen:

Although the value of such physical agents as heat, sunlight, water, etc., in the treatment of the ailing and in the alleviation of pain was recognized by our medical forefathers, the practice of physical therapy, as such, was a much neglected subject. It remained for a world war, with its attendant misery, suffering and physical deformities to demonstrate the true place of physical therapy in our medical armamentarium.

The initial stimulus to the practice of physical therapy resulting from the experiences of World War I, however, suffered a gradual retrogression. Enthusiasm became wishful thinking. Wishful thinking became grudging acceptance and grudging acceptance became in all too many cases downright antagonism. The reason for physical therapy's fall from grace is easily explained. Organized medicine, ever cautious in accepting new methods of treatment, and notoriously slow in protecting itself against the inroads of cultists and irregular practitioners, failed to protect, foster, develop and safeguard its "infant prodigy." The outcome should have been obvious. Faddists and cultists, although lacking in knowledge of such abstruse (to them) subjects as anatomy, physiology, pharmacology, etc., are certainly *not* lacking in knowledge of business promotion methods and salesmanship. Realizing the financial possibilities of physical therapy, and knowing little of and caring less for scientific study and evaluation, they launched a publicity campaign to popularize this new (to them) field of medical practice. Their representations were sickening to every honest physician.

Physical therapy was advocated as a cure for every ailment known to mankind. Great emphasis was placed on "machine therapy." Many unscrupulous manufacturers of physical therapy equipment advertised their wares in such glowing terms that laymen were persuaded to buy these "cure-all" machines for home use, under the mistaken idea that an accurate diagnosis was an unnecessary and merely a financial burden placed upon them by the medical profession. Faddists and cultists reaped the economic harvest. One wonders how many innocent "victims" were seriously incapacitated by the use of physical therapy procedures where definitely contra-indicated.

At long last, organized medicine awoke to the realization that the practice of physical therapy had not only been publicized to the laity and prostituted by the various cults, but had actually become a national health menace. Something should be done and something *was* done. The American Medical Association, realizing the seriousness of the situation, created the Council on Physical Therapy, the personnel for which was drawn from the most eminent physicists and physicians interested in physical therapy available. Theirs was a gigantic task, but eventually a scientific, analytical practice of physical therapy replaced the haphazard and chaotic application of machine therapy. Eventually the various state medical associations entered into the picture by forming their own committees on physical therapy to cooperate with the Council. Such is the function of this committee.

RECOMMENDATIONS

1. Today we are confronted with the medical problems of World War II. The mistakes of yesterday cannot, must not, and *will not* be repeated. Your committee, anticipating continuing attempts on the part of cultists and faddists to exploit the practice of physical therapy to the detriment of the general health and welfare of the people, recommend that the Committee on Physical Therapy be continued.

2. Your committee recommends that a close cooperation be maintained between this committee and the Committee to Study Cultists and Irregular Practitioners.

3. Your committee further recommends that this committee be permitted to work with the Committee on Public Policy and Legislation on affairs pertaining to the practice of physical therapy.

4. Facilities for the training of physical therapy technicians for the armed forces of our country being still woefully inadequate, we reiterate our recommendation of last year that a school for the training of physical therapy technicians be developed in Indiana University, and that every effort be made to encourage undergraduates and graduate physicians to acquaint themselves with at least the rudiments and basic principles of the proper utilization of physical medicine.

5. Your committee earnestly recommends that all hospitals be encouraged to create departments of physical therapy, or to modernize pre-existing departments, that they might be better enabled to care for casualties.

APPENDIX

Your committee wishes to express its sincere appreciation for the invaluable assistance furnished by Tom Hendricks and the Executive Staff of the Indiana State Medical Association.

We especially commend the Indianapolis Better Business Bureau for its splendid work in investigating fraudulent practices in physical therapy and for its vigorous prosecution of unethical practitioners.

Respectfully submitted,

N. H. Prentiss, M.D., *Chairman*
H. W. Smelser, M.D.
A. P. Hauss, M.D.
Don Bowers, M.D.
Virgil McCarty, M.D.
W. W. Ayres, M.D.

MEDICAL RELIEF COMMITTEE

House of Delegates,

Indiana State Medical Association.

Gentlemen:

This committee deeply regrets the loss of our chairman, Doctor John S. Leffel, who died in the spring after having spent much of his valuable time and physical self in an effort to make a workable medical relief program for those concerned in this state.

In arranging the program each county society was at liberty to make its own solution of how best to render medical aid to the recipients of aid from the Welfare Department. To date thirty-six counties have in effect programs approved by the State Welfare Department. Four counties have plans with tentative approval. Many counties have changed plans as desired, and some counties work on a mixed set-up. Some of the heavily populated counties have found it undesirable to accept any plan.

Many doctors are still calling attention to the over-all cost of relief and administration. The later analysis it is feared will be an effort to show the total cost as the high cost of medical care. Indiana yet has many areas where the township trustee is the overseer of the poor—real home rule, and good when not abused. In most county programs the fee schedules are below reasonable figures. This, coupled with the cumbersome paper work, has not proved popular or practical.

The inability to learn who is living off the taxpayers' money is another sore spot. There is also much complaint regarding the federal funds direct to patient for the purpose of paying his doctor only if and when he desires to do so. This is not a ruling of the Indiana Welfare Department but emanates from the source of the good life in Washington. The Indiana Welfare Department has cooperated well with the medical profession and time must be taken in arriving at smooth and satisfactory handling of the medical relief problems.

It is the recommendation of this committee that continued effort be made by the State Medical Association to be assertive in the guidance of the program, ever-changing as it will be as economic situations come along, each a little different from that before. The committee should ever welcome suggestions from individual doctors throughout the state.

Among the many excellent principles dwelt upon by Doctor J. S. Leffel, we desire respectfully to emphasize the following:

1. In providing care for the indigents, the smaller the taxing unit administering this aid, the greater will be the simplicity and efficiency of the medical services rendered.
2. A child should still honor his father and his mother, even to the extent of supporting them during their old age.
3. There is really nothing wrong in compelling a parent to support his own children.

Respectfully submitted,

E. O. Asher, M.D., *acting Chairman,*
E. F. Boggs, M.D.,
A. E. Stinson, M.D.,
J. L. Wyatt, M.D.,
J. T. Oliphant, M.D.,
R. B. Smallwood, M.D.,
C. B. Paynter, M.D.,
R. W. Waterson, *ex-officio.*

STUDY COMMITTEE ON AID TO NEEDY PHYSICIANS

House of Delegates,

Indiana State Medical Association

Gentlemen:

Inasmuch as every effort possible has been made to learn the names of needy physicians in this state and inasmuch as only two have come to the attention of this committee, we feel there is no further work for this committee and advise its dismissal at this time.

Respectfully submitted,

Ira E. Perry, M.D., *Chairman,*
B. B. Moore, M.D.,
A. W. Cavins, M.D.,
H. E. Bibler, M.D.,
C. Harstad, M.D.,
J. W. Iddings, M.D.

There is no better way for you to learn what your state organization is doing than by studying the annual reports as published in this issue.

HOUSE OF DELEGATES, INDIANA STATE MEDICAL ASSOCIATION

French Lick, September 29-30 and October 1, 1942

Delegates	*Alternates*
ADAMS	
James M. Burk, Decatur	R. G. Zimmerman, Berne
ALLEN	
M. R. Lohman, Fort Wayne	L. S. McKeeman, Fort Wayne
W. C. Wright, Fort Wayne	J. T. Short, Fort Wayne
E. R. Carlo, Fort Wayne	L. T. Rawles, Fort Wayne
BARTHOLOMEW	
B. W. Marshall, Nashville	R. B. Hart, Columbus
	H. H. Kamman, Columbus
BENTON	
V. L. Turley, Fowler	W. H. Altier, Fowler
BOONE	
O. E. Brendel, Zionsville	Ralph Harvey, Whitestown
CARROLL	
Max Adams, Flora	C. L. Wise, Camden
CASS	
B. W. Egan, Logansport	
CLARK	
E. P. Buckley, Jeffersonville	W. M. Varble, Jeffersonville
CLAY	
H. H. Ward, Coalmont	J. F. Maurer, Brazil
CLINTON	
John S. Ketcham, Rossville	Frank A. Beardsley, Frankfort
CRAWFORD	
H. H. Deen, Leavenworth	
DAVIESS-MARTIN	
S. L. McPherson, Washington	C. P. Fox, Washington
Karl Helm, Shoals	E. B. Lett, Loogootee
DEARBORN-OHIO	
O. H. Stewart, Aurora (Dearborn)	C. F. Fletcher, Sunman (Dearborn)
G. S. Fessler, Rising Sun (Ohio)	
DECATUR	
I. M. Sanders, Greensburg	
DEKALB	
DELAWARE-BLACKFORD	
DUBOIS	
Paul J. Blessinger, Jasper	
ELKHART	
A. C. Yoder, Goshen	D. D. Todd, Elkhart
FAYETTE-FRANKLIN	
H. N. Smith, Brookville	L. N. Ashworth, Connersville
FLOYD	
C. E. Briscoe, New Albany	H. E. Voyles, New Albany
FOUNTAIN-WARREN	
J. Carl Freed, Attica	W. A. Johnson, Perrysville
FULTON	
A. E. Stinson, Rochester	D. K. Stinson, Rochester
GIBSON	
Carl Clark, Oakland City	O. T. Brazelton, Princeton
GRANT	
GREENE	
K. L. Hull, Bloomfield	Carl Porter, Jasonville
HAMILTON	
C. H. Tomlinson, Cicero	C. M. Donahue, Carmel
HANCOCK	
Jesse E. Ferrell, Fortville	Earl R. Gibbs, Wilkinson
HARRISON	
William E. Amy, Corydon	
HENDRICKS	
O. T. Scamahorn, Pittsboro	R. E. Jones, Clayton

Delegates	*Alternates*
HENRY	
W. U. Kennedy, New Castle	
HOWARD	
D. A. Morrison, Kokomo	B. D. Lung, Kokomo
HUNTINGTON	
C. S. Black, Warren	J. B. Eviston, Huntington
JACKSON	
G. H. Kamman, Seymour	Durbin C. Day, Seymour
JASPER-NEWTON	
JAY	
George V. Cring, Portland	B. M. Taylor, Portland
JEFFERSON	
N. A. Kremer, Madison	E. C. Totten, Madison
JENNINGS	
J. H. Green, North Vernon	D. W. Matthews, N. Vernon
JOHNSON	
Oran Province, Franklin	John H. Machledt, Whiteland
KNOX	
KOSCIUSKO	
O. H. Richer, Warsaw	
LAGRANGE	
W. H. Morrison, Howe	H. F. Flannigan, LaGrange
LAKE	
Henry Eggers, Hammond	J. S. Niblick, Indiana Harbor
W. H. Howard, Hammond	C. R. Pettibone, Crown Point
C. M. Jones, Whiting	R. M. Hedrick, Gary
F. J. McMichael, Gary	R. N. Wimmer, Gary
P. Q. Row, Hammond	C. C. Brink, Gary
LA PORTE	
J. N. Kelly, La Porte	Frank Martin, Michigan City
LAWRENCE	
MADISON	
C. V. Rozelle, Anderson	W. M. Hoppenrath, Elwood
Sam Litzenberger, Anderson	W. M. Miley, Anderson
MARION	
Ben B. Moore, Indianapolis	E. W. Dyar, Indianapolis
Ralph Lochry, Indianapolis	H. F. Nolting, Indianapolis
O. W. Sicks, Indianapolis	F. M. Gastineau, Indianapolis
O. H. Bakemeier, Indianapolis	P. E. McCown, Indianapolis
Roy A. Geider, Indianapolis	C. L. Rudesill, Indianapolis
John H. Warvel, Indianapolis	Matthew Winters, Ind'pls
J. O. Ritchey, Indianapolis	O. P. Hannebaum, Ind'pls
Marlow Manion, Indianapolis	Henry F. Nolting, Indianapolis
E. F. Boggs, Indianapolis	Daniel L. Bower, Indianapolis
Rollin H. Moser, Indianapolis	C. H. Jinks, Indianapolis
K. G. Kohlstaedt, Indianapolis	M. R. Shafer, Indianapolis
Paul Merrell, Indianapolis	J. H. Stygall, Indianapolis
M. V. Kahler, Indianapolis	I. J. Kwitny, Indianapolis
MARSHALL	
A. A. Thompson, Tyner	
MIAMI	
D. W. Ferrara, Peru	Fred Malott, Converse
MONROE	
H. S. Hepner, Bloomington	Fred Batman, Bloomington
MONTGOMERY	
T. Z. Ball, Crawfordsville	G. A. Collett, Crawfordsville
MORGAN	
H. H. Dutton, Martinsville	H. R. Willan, Martinsville
NOBLE	
W. F. Carver, Albion	A. L. Fipp, Rome City
ORANGE	
George Dillinger, French Lick	John K. Spears, Paoli

Delegates	Alternates
OWEN	
Boaz Yocum, Coal City	Charles Stouder, Gosport
PARKE-VERMILLION	
C. S. White, Rosedale	J. R. Bloomer, Rockville
S. C. Darroch, Cayuga	J. L. Saunders, Newport
PERRY	
F. C. Glenn, Tell City	N. A. James, Tell City
PIKE	
J. T. Kime, Petersburg	L. R. Miller, Winslow
PORTER	
W. C. Butman, Hebron	Paul Vietzke, Valparaiso
POSEY	
W. E. Jenkinson, Mt. Vernon	
PULASKI	
G. H. McCaskey, Winamac	C. E. Linton, Medaryville
PUTNAM	
J. F. Gillespie, Greencastle	W. M. McGaughey, Grncstle.
RANDOLPH	
J. S. Robison, Winchester	F. McK. Ruby, Union City
RIPLEY	
L. W. Hisrich, Batesville	Geo. S. Row, Osgood
RUSH	
Willard Smullen, Rushville	C. C. Atkins, Rushville
ST. JOSEPH	
A. S. Giordano, South Bend	M. E. Whitlock, Mishawaka
Erwin Blackburn, South Bend	Wallace Buchanan, Bremen
SCOTT	
M. M. McClain, Scottsburg	Floyd S. Napper, Scottsburg
SHELBY	
H. H. Inlow, Shelbyville	P. R. Tindall, Shelbyville
SPENCER	
Chas. Springstun, Chrisney	John H. Barrow, Dale
STARKE	
J. L. DeNaut, Hamlet	J. F. DeNaut, Knox
STEUBEN	
W. F. Waller, Angola	B. A. Blosser, Fremont
SULLIVAN	
J. R. Crowder, Sullivan	C. E. Whipps, Carlisle
SWITZERLAND	
R. M. Copeland, Vevay	L. H. Bear, Vevay
TIPPECANOE	
Earl VanReed, Lafayette	R. R. Calvert, Lafayette
Gordon A. Thomas, Lafayette	O. L. McCay, Romney
TIPTON	
S. M. Cotton, Goldsmith	A. E. Stouder, Kempton
VANDERBURGH	
Robert Acre, Evansville	Wm. M. Cockrum, Evansville
Minor Miller, Evansville	D. Tweedall, Sr., Evansville
Chris Cullnane, Evansville	
VIGO	
O. R. Spigler, Terre Haute	E. O. Nay, Terre Haute
M. C. Topping, Terre Haute	A. W. Cavins, Terre Haute
WABASH	
O. G. Brubaker, N. Manchstr.	
WARRICK	
WASHINGTON	
Claude B. Paynter, Salem	Donald Colglazier, Salem
WAYNE-UNION	
Harry P. Ross, Richmond	E. E. Holland, Richmond
Will Thompson, Liberty	
WELLS	
Max M. Gitlin, Bluffton	A. C. Nickel, Bluffton
WHITE	
J. P. Galbreth, Burnettsville	H. W. Greist, Monticello
WHITLEY	
P. A. Garber, South Whitley	E. V. Nolt, Columbia City

REFERENCE COMMITTEES
1942

1. SECTIONS AND SECTION WORK:
Chairman, B. W. Egan, Logansport (Cass)
G. H. Kamman, Seymour (Jackson)
I. M. Sanders, Greensburg (Decatur)
S. M. Cotton, Goldsmith (Tipton)
O. H. Stewart, Aurora (Dearborn)

2. RULES AND ORDER OF BUSINESS:
Chairman, H. H. Ward, Coalmont (Clay)
P. J. Blessinger, Jasper (Dubois)
Carl Clark, Oakland City (Gibson)
C. H. Tomlinson, Cicero (Hamilton)
W. H. Morrison, Howe (LaGrange)

3. MEDICAL EDUCATION AND HOSPITALS:
Chairman, Oran Province, Franklin (Johnson)
John H. Warvel, Indianapolis (Marion)
N. A. Kremer, Madison (Jefferson)
Erwin Blackburn, South Bend (St. Joseph)
T. Z. Ball, Crawfordsville (Montgomery)

4. PUBLIC POLICY AND LEGISLATION:
Chairman, Ben B. Moore, Indianapolis (Marion)
S. C. Darroch, Cayuga (Vermillion)
J. F. Gillespie, Greencastle (Putnam)
Will Thompson, Liberty (Union)
V. L. Turley, Fowler (Benton)

5. PUBLICITY:
Chairman, W. U. Kennedy, New Castle (Henry)
Clay A. Ball, Muncie (Delaware)
A. E. Stinson, Rochester (Fulton)
O. G. Brubaker, North Manchester (Wabash)
Earl VanReed, Lafayette (Tippecanoe)

6. HYGIENE AND PUBLIC HEALTH:
Chairman, C. S. Black, Warren (Huntington)
Harry P. Ross, Richmond (Wayne)
W. H. Howard, Hammond (Lake)
O. H. Richer, Warsaw (Kosciusko)
H. H. Dutton, Martinsville (Morgan)

7. AMENDMENTS TO CONSTITUTION AND BY-LAWS:
Chairman, Claude B. Paynter, Salem (Washington)
W. M. Miley, Anderson (Madison)
J. N. Kelly, LaPorte (LaPorte)
J. R. Crowder, Sullivan (Sullivan)
W. E. Jenkinson, Mt. Vernon (Posey)

8. REPORTS OF OFFICERS:
Chairman, J. O. Ritchey, Indianapolis (Marion)
W. C. Wright, Fort Wayne (Allen)
O. T. Scamahorn, Pittsboro (Hendricks)
Robert Acre, Evansville (Vanderburgh)
J. S. Robison, Winchester (Randolph)

9. COMMITTEE ON CREDENTIALS:
Chairman, W. F. Carver, Albion (Noble)
Jesse E. Ferrell, Fortville (Hancock)
William E. Amy, Corydon (Harrison)
Gordon A. Thomas, Lafayette (Tippecanoe)
M. R. Lohman, Fort Wayne (Allen)

10. COMMITTEE ON MISCELLANEOUS BUSINESS:
Chairman, J. H. Green, North Vernon (Jennings)
A. A. Thompson, Tyner (Marshall)
T. C. Glenn, Tell City (Perry)
H. S. Hepner, Bloomington (Monroe)
L. W. Hisrich, Batesville (Ripley)

LIST OF PRESIDENTS OF THE INDIANA STATE MEDICAL ASSOCIATION SINCE ITS ORGANZATION

Name and Residence	Elected	Served
*Livingston Dunlap, Indianapolis	1849	1849
*William T. S. Cornett, Versailles	1849	1850
*Ashahel Clapp, New Albany	1850	1851
*George W. Mears, Indianapolis	1851	1852
*Jeremiah H. Brower, Lawrenceburg	1852	1853
*Elizur H Deming, Lafayette	1853	1854
*Madison J. Bray, Evansville	1854	1855
*William Lomax, Marion	1855	1856
*Daniel Meeker, LaPorte	1856	1857
*Talbott Bullard, Indianapolis	1857	1858
*Nathan Johnson, Cambridge City	1858	1859
*David Hutchinson, Mooresville	1859	1860
*Benjamin S. Woodworth, Fort Wayne	1860	1861
*Theophilus Parvin, Indianapolis	1861	1862
*James F. Hibberd, Richmond	1862	1863
*John Sloan, New Albany	1863	1864
*John Moffett (acting), Rushville	1864	1864
*Samuel M. Linton, Columbus	1864	1865
*Wilson Lockhart (acting), Danville	1865	1865
*Myron H. Harding, Lawrenceburg	1865	1866
*Vierling Kersey, Richmond	1866	1867
*John S. Bobbs, Indianapolis	1867	1868
*Nathaniel Field, Jeffersonville	1868	1869
*George Sutton, Aurora	1869	1870
*Robert M. Todd, Indianapolis	1870	1871
*Henry P. Ayres, Fort Wayne	1871	1872
*Joel Pennington, Milton	1872	1873
*Isaac Casselbery, Evansville	1873	.....
*Wilson Hobbs, Knightstown	1873	1874
*Richard E. Haughton, Richmond	1874	1875
*John H. Helm, Peru	1875	1876
*Samuel S. Boyd, Dublin	1876	1877
*Luther D. Waterman, Indianapolis	1877	1878
*Louis Humphreys, South Bend	1878	——
*Benj. Newland (acting), Bedford (v.-p.)	1878	1879
*Jacob R. Weist, Richmond	1879	1880
*Thomas B. Harvey, Indianapolis	1880	1881
*Marshall Sexton, Rushville	1881	1882
*William H. Bell, Logansport	1882	1883
*Samuel E. Munford, Princeton	1883	1884
*James H. Woodburn, Indianapolis	1884	1885
*James S. Gregg, Fort Wayne	1885	1886
*General W. H. Kemper, Muncie	1886	1887
*Samuel H. Charlton, Seymour	1887	1888
*William H. Wishard, Indianapolis	1888	1889
*James D. Gatch, Lawrenceburg	1889	1890
*Gonsolvo C. Smythe, Greencastle	1890	1891
*Edwin Walker, Evansville	1891	1892
*George F. Beasley, Lafayette	1892	1893
*Charles A. Daugherty, South Bend	1893	1894
*Elijah S. Elder, Indianapolis	1894	.....
Charles S. Bond (acting), Richmond	1894	1895
*Miles F. Porter, Fort Wayne	1895	1896
*James H. Ford, Wabash	1896	1897
*William N. Wishard, Indianapolis	1897	1898
*John C. Sexton, Rushville	1898	1899
*Walker Schell, Terre Haute	1899	1900
*George W. McCaskey, Fort Wayne	1900	1901
*Alembert W. Brayton, Indianapolis	1901	1902
*John B. Berteling, South Bend	1902	1903
*Jonas Stewart, Anderson	1903	1904
*George T. MacCoy, Columbus	1904	1905
*George H. Grant, Richmond	1905	1906
*George J. Cook, Indianapolis	1906	1907
*David C. Peyton, Jeffersonville	1907	1908
*George D. Kahlo, French Lick	1908	1909
*Thomas C. Kennedy, Shelbyville	1909	1910
*Frederic C. Heath, Indianapolis	1910	1911
*William F. Howat, Hammond	1911	1912
*A. C. Kimberlin, Indianapolis	1912	1913
*John P. Salb, Jasper	1913	1914
*Frank B. Wynn, Indianapolis	1914	1915
*George F. Keiper, Lafayette	1915	1916
*John H. Oliver, Indianapolis	1916	1917
Joseph Rilus Eastman, Indianapolis	1917	1918
William H. Stemm, North Vernon	1918	1919
*Charles H. McCully, Logansport	1919	1920
*David Ross, Indianapolis	1920	1921
William R. Davidson, Evansville	1921	1922
*Charles H. Good, Huntington	1922	1923
*Samuel E. Earp, Indianapolis	1923	1924
E. M. Shanklin, Hammond	1924	1925
C. N. Combs, Terre Haute	1925	1926
Frank W. Cregor, Indianapolis	1926	1927
George R. Daniels, Marion	1926	1928
Charles E. Gillespie, Seymour	1927	1929
Angus C. McDonald, Warsaw	1928	1930
Alois B. Graham, Indianapolis	1929	1931
Franklin Smith Crockett, Lafayette	1930	1932
Joseph H. Weinstein, Terre Haute	1931	1933
Everett E. Padgett, Indianapolis	1932	1934
*Walter J. Leach, New Albany	1933	1935
Roscoe L. Sensenich, South Bend	1934	1936
*Edmund Dougan Clark, Indianapolis	1935	1937
Herman M. Baker, Evansville	1936	1938
Edmund M. Van Buskirk, Fort Wayne	1937	1939
Karl R. Ruddell, Indianapolis	1938	1940
Albert M. Mitchell, Terre Haute	1939	1941
M. A. Austin, Anderson	1940	1942

* *Deceased*

DATA FROM PREVIOUS SESSIONS

Year	*Session*	*Place*	*Registration*
1908	59th	French Lick	312
1909	60th	Terre Haute	421
1910	61st	Fort Wayne	450
1911	62nd	Indianapolis	748
1912	63rd	Indianapolis	590
1913	64th	West Baden	312
1914	65th	Lafayette	527
1915	66th	Indianapolis	646
1916	67th	Fort Wayne	381
1917	68th	Evansville	270
1918	69th	Indianapolis	388
1919	70th	Indianapolis	.....
1920	71st	South Bend	421
1921	72nd	Indianapolis	550
1922	73rd	Muncie	522
1923	74th	Terre Haute	823
1924	75th	Indianapolis	1,012
1925	76th	Marion	800
1926	77th	West Baden	900
1927	78th	Indianapolis	1,500
1928	79th	Gary	892
1929	80th	Evansville	814
1930	81st	Fort Wayne	1,115
1931	82nd	Indianapolis	1,033
1932	83rd	Michigan City	904
1933	84th	French Lick	637
1934	85th	Indianapolis	1,814
1935	86th	Gary	1,011
1936	87th	South Bend	1,150
1937	88th	French Lick	1,154
1938	89th	Indianapolis	1,751
1939	90th	Fort Wayne	1,332
1940	91st	French Lick	1,064
1941	92nd	Indianapolis	1,890
1942	93rd	French Lick	?

CONFERENCE OF LOCAL HEALTH OFFICERS AND CHIEFS OF THE EMERGENCY MEDICAL SERVICE OF THE INDIANA CIVILIAN DEFENSE PROGRAM

FRENCH LICK SPRINGS HOTEL
FRENCH LICK, INDIANA

TUESDAY, SEPTEMBER 29, 1942

10:00 a.m.—12:00 Noon—Registration

GAME ROOM, MEZZANINE FLOOR.

Opening Session 1:30 p.m.—4:00 p.m.

H. S. Leonard, M.D., Chairman, Emergency Medical Service Advisory Committee, presiding

1:30 p.m.—2:15 p.m.—"Indiana Defense Program with Special Emphasis on Health Aspects"—John W. Ferree, M.D., State Health Commissioner.

2:15 p.m.—2:45 p.m.—"Responsibilities of Health Officers in Civilian Defense Programs"—George M. Brother, M.D., Chief, Bureau of Local Health Administration, Indiana State Board of Health.

2:45 p.m.—3:30 p.m.—"How Floyd County Emergency Medical Service Has Been Developed"—A. P. Hauss, M.D., Chief, Floyd County Emergency Medical Services.

3:30 p.m.—4:00 p.m.—General Discussion of Questions Submitted from the Audience.

Evening Session 8 30 p.m.

NORTH CONVENTION HALL

President of the Indiana State Board of Health, presiding

"What is Expected of Emergency Medical Services"—William S. Keller, Senior Surgeon, U. S. Public Health Service, Regional Medical Officer, Fifth Region, Office of Civilian Defense.

Adjournment.

Exhibitors

Booth Number

1—JOHN WYETH AND BROTHER, INC., Philadelphia, Pa.
2—THE BORDEN COMPANY, New York, N. Y.
3-4—ABBOTT LABORATORIES, North Chicago, Ill.
5—AMERICAN HOSPITAL SUPPLY CORP., Chicago, Ill.
6—EXERCYCLE OF CHICAGO, Chicago, Ill.
8-9—PITMAN-MOORE COMPANY, Indianapolis, Ind.
10—HOLLAND-RANTOS COMPANY, INC., New York, N. Y.
11—PARKE, DAVIS & COMPANY, Detroit, Mich.
12—W. B. SAUNDERS COMPANY, Philadelphia, Pa.
13-14—CAMEL CIGARETTES, New York, N. Y.
15—ELI LILLY AND COMPANY, Indianapolis, Ind.
16—DICK X-RAY COMPANY, St. Louis, Mo.
18—PETROGALAR LABORATORIES, INC., Chicago, Ill.
19—WHITE LABORATORIES, INC., Newark, N. J.
20—F. E. YOUNG AND COMPANY, Chicago, Ill.
21—C. B. FLEET COMPANY, Lynchburg, Va.
24—NATIONAL LIVE STOCK AND MEAT BOARD, Chicago.
26—ORTHO PRODUCTS, INC., Linden, N. J.
27—J. E. HANGER, INC., Indianapolis, Ind.
28—PHILIP MORRIS & COMPANY, New York, N. Y.
29—MEAD JOHNSON & COMPANY, Evansville, Ind.
30—SMITH, KLINE & FRENCH LABORATORIES, Philadelphia, Pa.
31—MEDICAL PROTECTIVE COMPANY, Fort Wayne, Ind.
33—SHARP AND DOHME, INC., Philadelphia, Pa.
34—A. S. ALOE COMPANY, St. Louis, Mo.

Booth 1

JOHN WYETH AND BROTHER, INCORPORATED

Philadelphia, Pennsylvania

You are cordially invited to visit Booth No. 1 where John Wyeth & Brother representatives will be pleased to show you the new Hemo-guide to aid in the diagnosis of anemia.

Among the pharmaceutical specialties also to be exhibited are: Amphojel, Wyeth's alumina jel; Phosphaljel, Wyeth's alumina phosphatejel for peptic ulcer complicated with pancreatic deficiency; Bepron, Wyeth's beef liver with iron; B-Plex Elixir, the complete natural vitamin B complex; Kaomagma, for the management of diarrhea and colitis; A.B.M.C. Ointment, for the relief or arthritic pain; and the silver picrate products for acute anterior urethritis and trichomonas vaginitis.

* * *

Booth 2

THE BORDEN COMPANY

New York, N. Y.

Up-to-date information about Borden's scientifically designed infant food at Booth No. 2. Biolac, a liquid modified milk, facilitates the preparation of formulas which fully satisfy all nutritional requirements of early infancy except vitamin C. New Improved Dryco (now spray-dried instead of roller-dried) has increased potencies of vitamins A and D and quicker solubility. It retains the same high-protein, low-fat composition of original Dryco and offers the same unique formula flexibility. Mullsoy, an emulsified food for infants allergic to milk, is exceptionally palatable, readily digestible, and easy to prepare for feeding. It is a liquid preparation of soy bean flour, soy bean oil, water, and added carbohydrate and mineral salts. Other infant foods of special merit include Beta Lactose, the improved milk sugar; Klim,

powdered whole milk; Merrell-Soule Powdered Milks, and Borden's Silver Cow Irradiated Evaporated Milk.

* * *

Booths 3 and 4

ABBOTT LABORATORIES

North Chicago, Illinois

With the withdrawal of many physicians from civilian practice into the armed forces, a wider field of activity will be required from those left on the home front. To help meet this requirement Abbott-trained representatives eagerly await opportunities to exchange notes with you regarding the comprehensive exhibition of Abbott Specialties shown here.

Practitioners in war and civilian work will be interested in discussing the products exhibited, including the firmly established Arsenical-Bismuth, Metaphen, Butyn, Chlorazene, Butesin Picrate, Barbiturate-Nembutal, Pentothal Sodium, Acriflavine, Acetarsone, Ammonium Mandelate, Argental, Argyn, Calcidin, Cofron, Ephedrine, Epinephrine, Glucophylline, Gold Sodium Thiosulfate and Procaine products.

An assortment of Sulfa-drugs, Vitamins, Estriol, Estrone, Large volume intravenous solutions (including the new Beclysyl combining vitamin B-Complex factors with Dextrose), Vioptamin, Injectable Liver Extract, Ronone, etc., are among the newer products shown.

You are heartily invited to drop in and see us.

* * *

Booth 5

AMERICAN HOSPITAL SUPPLY CORPORATION

Chicago New York

The vital importance of plasma banks, and the consequent interest being displayed in the field of plasma preparation and storage, makes the American Hospital Supply Corporation display of Baxter products especially engrossing. Baxter equipment will be on display . . . Baxter techniques will be thoroughly explained . . . information about a complete plasma bank installation will be available.

Also on display will be many specialty items of interest.

* * *

Booth 6

EXERCYCLE

Chicago

Exercycle is an electrically operated exercising machine giving passive effortless exercise adjustable to cycling, rowing, horseback riding, and swimming, in various combinations.

* * *

Booths 8 and 9

PITMAN-MOORE COMPANY

Indianapolis, Indiana

The Pitman-Moore exhibit will be divided into three main sections. One of these will feature biological and pharmaceutical products which have been added to that Company's extensive line since the last meeting of the Association. Another will consist of a showing of products essential to the control of infections common to the fall and winter season. The third will display Pitman-Moore children's tablets, medication especially prepared to facilitate administration to infants and children. The booth will be in charge of executives of the Company, assisted by members of the Indiana sales force.

* * *

Booth 10

HOLLAND-RANTOS COMPANY, INCORPORATED

New York—Chicago—Los Angeles

Physicians are cordially invited to inspect the comprehensive line of contraceptive specialties, featuring swivel-tip H-R Trip-Release Diaphragm Introducers, as well as standard Koromex Diaphragms, Koromex Jelly and H-R Emulsion Cream.

Representatives will be pleased to discuss any particular problem of diaphragm technique and the use of special diaphragms in unusual cases.

Be sure to secure your complimentary Rantex Surgical Mask. Rantex Masks and Caps, made from vegetable fiber compound, are both practicable and economical for hospital, sick room and nursery. See also hospital garments and bedding of plasticized Eltex fabric, an acceptable substitute for rubber sheeting.

* * *

Booth 11

PARKE, DAVIS & COMPANY

Detroit, Michigan

Featured in the Parke-Davis exhibit will be the sex hormones, Theelin and Theelol; antisyphilitic agents, such as Mapharsen and Thio-Bismol; posterior lobe preparations, including Pituitrin, Pitocin and Pitressin; and various Adrenalin Chloride preparations.

* * *

Booth 12

W. B. SAUNDERS COMPANY

Philadelphia, Pennsylvania

This publishing house will have an unusually attractive exhibit in which will be displayed many new books and new editions of particular importance now. They will include the six Official Military Surgical Manuals, the new (1942) Mayo Clinic Volume, Lundy's "Anesthesia," Walters, Gray & Priestley's "Carcinoma of the Stomach," Duncan's "Metabolic Diseases," Johnstone's "Occupational Diseases," Surgical Practice of the Lahey Clinic, Kolmer & Tuft's "Clinical Immunology, Biotherapy and Chemotherapy," Cutler's "Diseases of the Hand," Weiss & English's "Phychosomatic Medicine," Stieglitz's "Geriatrics," and new editions of Beckman's "Treatment," Christopher's "General Surgery," Sollmann's "Pharmacology," Boyd's "Surgical Pathology," and Curtis' "Gynecology."

* * *

Booths 13 and 14

CAMEL CIGARETTES

New York, N. Y.

Camel Cigarettes will exhibit large detailed photographs of equipment used in comparative tests of the five largest-selling brands of cigarettes. These tests proved that Camels burn slower and contain less nicotine in the smoke than other cigarettes. Representatives will be available to discuss this research. See for the first time the dramatic visualization of nicotine absorption from cigarette smoke in the human respiratory tract. Keep up to the minute on international news with the Camel Cigarette Trans-Lux "Flash Bulletins," while you enjoy a supply of slow-burning Camel Cigarettes.

* * *

Booth 15

ELI LILLY AND COMPANY

Indianapolis, Indiana

The Lilly exhibit is evidence of the interest of Eli Lilly and Company in the Indiana State Medical Association. Lilly products, both old and new, will be on display and Lilly representatives will be present to serve physicians in every possible way.

* * *

Booth 16

THE DICK X-RAY COMPANY

Indianapolis, Indiana

The Dick X-Ray Company, 443 North Pennsylvania Street, Indianapolis, Indiana, will have an exhibit of Westinghouse x-ray and Liebel-Flarsheim physio-therapy equipment at the Indiana State Medical Convention at French Lick, September 29th, 30th, and October 1st. Doctors are cordially invited to make our booth their headquarters.

* * *

Booth 18

PETROGALAR LABORATORIES, INCORPORATED

Chicago, Illinois

Physicians are cordially invited to visit the Petrogalar exhibit at Booth No. 18, where a new and enlightening story on Petrogalar, an aqueous suspension of mineral oil, will be

related. Beautifully colored anatomical drawings and new literature may be had upon request from our representative, Mr. J. H. Mann, who will be in constant attendance.

* * *

Booth 19

WHITE LABORATORIES

Newark, New Jersey

Within recent years tremendous advances in vitamin research have added a wealth of clinical data to our knowledge of nutrition.

The intense popular interest in the vitamins—often, unfortunately, confused and misled by unauthoritative lay advertising and uninformed "information"—can be properly controlled by the physician's interpretation of the actual usefulness of the vitamins to his patients.

In Booth No. 19 White Laboratories, Inc., present its complete line of ethically promoted vitamin preparations. Qualified representatives are in attendance to discuss with you the use of White's products in vitamin prophylaxis and therapy. Descriptive literature is available for your review.

* * *

Booth 24

NATIONAL LIVE STOCK AND MEAT BOARD

Chicago, Illinois

The exhibit of the National Live Stock and Meat Board will present their new "Nutrition Yardstick" which has been designed to enable the doctor and nutritionist to determine rapidly and accurately the food value of any diet. It incorporates the Recommended Daily Allowances for Specific Nutrients set up by the National Research Council and displays in a unique and usable manner the margins of adequate and inadequate nutrition.

A set of wall-size nutrition charts entitled "Eat the Right Foods Daily," which outlines the requisites of good nutrition on the basis of the adequate intake of energy, building and regulating foods, will be available upon request.

* * *

Booth 26

ORTHO PRODUCTS, INC.

Linden, New Jersey

The Ortho Products exhibit features the scientific background of Ortho-Gynol, Ortho-Creme, and Ortho Diaphragms. Physicians are invited to discuss with our representative the use and effectiveness of our products. Ask for reprints of published reports on clinic studies of modern methods of contraception.

* * *

Booth 27

J. E. HANGER, INC.

Indianapolis

J. E. Hanger, Incorporated, manufacturers of artificial limbs, cordially invites the members of the convention to visit their display in the exhibitors' hall.

These appliances are the results of eighty-one years of experience in the artificial limb profession. You will find displayed the latest methods of construction and fittings used in artificial limbs; for instance, there is the above-knee Hanger hip-control limb with the automatic knee lock which gives complete control of the knee, giving confidence and eliminating all fear of falling in the mind of a new wearer when learning to walk on an above-knee limb. This is a new feature and it has proved to be highly effective.

The rehabilitation of a patient should be uppermost in the minds of both the surgeon and the artificial limb manufacturer. Only by the closest cooperation between them can the best results be obtained.

The exhibit will be attended by J. G. Best, vice-president of the Indiana Corporation.

* * *

Booth 28

PHILIP MORRIS & COMPANY

New York, N. Y.

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

* * *

Booth 29

MEAD JOHNSON & COMPANY

Evansville, Indiana

"Servamus Fidem" means "We Are Keeping the Faith." Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pablum, Oleum Percomorphum and other infant diet materials. But not all physicians are aware of the many helpful services this progressive company offers physicians. A visit to Booth No. 29 will be time well spent.

* * *

Booth 30

SMITH, KLINE & FRENCH LABORATORIES

Philadelphia, Pennsylvania

Benzedrine Sulfate Tablets will be featured at this exhibit. It has been said that Benzedrine Sulfate offers "a therapeutic rationale which, in its very efficiency, cuts across the old categories." It is, therefore, useful in many widely varied fields of medicine.

Won't you call upon us if you desire information about the use of this highly important compound in depressive states; as an adjunct in the treatment of alcoholism; and in postencephalitic parkinsonism, narcolepsy, etc? One of our professional representatives will be glad to discuss with you its potentialities and possible indications in your own practice.

Benzedrine Inhaler,[1] N.N.R., Paredrine Hydrobromide Aqueous[1] and Eskay's Pentaplex are also on display.

* * *

Booth 31

THE MEDICAL PROTECTIVE COMPANY

Fort Wayne, Indiana

The Medical Protective Company is represented at Booth No. 31 where you are invited to call. Medical Protective Service is an institution of the medical profession whose legal liability problems we have concentrated upon for forty-three years. Bring your professional liability problems and questions to Booth No. 31. Our representative is at your service to present our protection plan, to explain the peculiar relation of the doctor to the law which governs your practice, or to discuss any particular phase of professional liability in which you are especially interested.

* * *

Booth 33

SHARP AND DOHME, INCORPORATED

Philadelphia, Pennsylvania

Sharp & Dohme will have their modern display at Booth No. 33, featuring "Lyovac" Normal Human Plasma, other "Lyovac" biologicals and biological specialties. There will also be on display a group of pharmaceutical specialties, such as the new Liquid "Digitol" and Tablets "Digitol," which are clinically standardized in humans, "Delvinal" Sodium, "Propadrine" Hydrochloride products, "Rabellon," "Riona," "Depropanex," and "Prohexinol." Capable well-informed representatives will be on hand to welcome all visitors and furnish information on Sharp & Dohme products.

* * *

Booth 34

A. S. ALOE COMPANY

St. Louis, Missouri

A. S. Aloe Company cordially invites you to visit Booth No. 34. They will have on display a complete line of American-made Stainless Steel Surgical Instruments, Surgical Supplies, Laboratory Apparatus and Physical Therapy equipment.

Many new and exclusive items will be shown. Mr. Hawes Dwinell will be in attendance.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis

Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis....Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend....Dec. 31, 1944

SEPTEMBER, 1942

Editorials

AN INFORMAL DINNER

The French Lick convention will be of the streamlined order—no frills—elimination of many details that have heretofore entered into the convention picture. *This will be a war meeting and it means just that.* The annual get-together for the men will be carried out although perhaps on a less elaborate scale. The annual banquet will be held as usual, but with this change over former years: It will be strictly a "come-as-you-are affair," no dinner jackets or tails, no formals for the ladies—for that one occasion we are going to be "just Hoosier folk—sit down to one of the famed French Lick Hotel dinners and later be entertained by a program adapted to the war motif.

There are many reasons for this change in the custom of former years, chief of which is the fact that the Indiana State Medical Association long since went in for an all-out-for-the-duration program; we were the first state in the nation to present an adequate, workable plan along the lines of M-Day, and since that time we have responded to every call made upon us by the federal authorities. Almost a thousand of our members will be in the armed services when we assemble for this annual dinner. We know they will wish us to carry on as usual, and we feel they will be pleased to know that the outstanding feature of our annual meetings, the annual banquet, is going on as usual, except that it will be an informal affair.

This is no time for stressing social affairs—too many such are going on every day in our state; social affairs, as such, should be cast into the background for the present. *The world is at war;* its peoples are living amidst woe, misery, and unbelievable hardships; and the great majority of the population have no interest in affairs of a purely social nature.

We believe an informal dinner at this time will meet with the approval of our members and that it will announce to the citizens of Indiana that its medical men are mindful that we are at war and, being at war, that this is no time to play.

Register for the dinner as usual when you arrive at French Lick, but leave your "dress-up duds" at home; there will be no use for them on this occasion.

MORE MEDICAL OFFICERS NEEDED

The fact that Indiana has some nine hundred physicians in the armed services and that she is well ahead of her present quota by no means indicates that our job is ended. As the weeks and months go by it becomes definitely clear that our job, far from being finished, is just begun. The tides of battle have not yet swung in our direction, in most places over the world, which means more and yet more armed men will be necessary to win this war. And, of course, that means more medical officers.

Indiana, along with the other states, will be required to furnish several hundred additional medical officers, hence our state Procurement and Assignment Committee has plenty of work cut out for it. The younger group has been pretty well combed over, as has the forty-five-year group, although there are many of this latter age class that soon will be called. This means that the forty-five to fifty age-group soon will be asked to enlist, and it might be well for them to even now begin to trim their sails accordingly.

Colonel Bird, in a recent statement, made the prediction that the number of medical officers in the armed forces would reach sixty thousand ere the war had ended, and we have no reason to doubt the correctness of that statement. The calling of a few hundred more Indiana physicians into service means that the older age-groups will be asked to enlist. This, of course, brings additional problems, problems that must be met. Already we are undergoing some degree of readjustment of medical practice. During the next year this will have to again be readjusted, and that same process will have to be gone over again and again ere the program has been completed.

We are advised that changes in the medical personnel in Washington and elsewhere are already being planned—some have been made. Medical officers who have been serving at desks will be transferred to active service, laymen taking their old positions.

There is still a lot of complacency here and

there about the state; a lot of folk, including some members of the medical profession, have not as yet become war-minded. This situation will be cleared up to a great extent in the near future when the thing begins to "strike home." Hundreds of thousands of our young men are in foreign countries and several times that number are being prepared to go to these points.

No longer can we be complacent about this thing, we must gird the armor a bit tighter, we must begin a more rigid self-denial—either that or it will be done for us. We had thought World War I was a pretty serious business. It was nothing as compared to the Hell-on-Earth that exists throughout the world today. There is just one job before every citizen of America, that of *forever* exterminating the Hitlers, the Mussolinis and others of that ilk.

This is your war and my war; it is not a war of official Washington and the Congress. The job is so prodigious that it will require the personal assistance of every resident of the nation—let's render that assistance when the call comes!

A NEW VERSION OF AN OLD STORY

The problem of how to curb the few members of the organized medical profession who seek publicity to a greater or less degree has existed for ages. In some instances a regular, maintained effort has been carried on to bring to the attention of the reading public the prowess of this or that physician, in a few instances this having reached the stage where even the newspaper editor had begun to wonder if the thing had not gone too far.

Numerous suggestions have been made as to the curbing of these self-centered physicians; on occasion they have been "called up on the carpet" and given advice as to their future activities in this direction. Newspapermen have been consulted about it, their answer invariably being that the items published constitute news, and they confess their inability to see that the name of the physician does not add to the effectiveness of the story.

Some have even suggested that if physicians would advertise in their paper the editor thereof would listen to their complaints with more interest.

So, we read with interest the announcement coming from one of our larger local societies to the effect that at long last there is an understanding with the local press. No longer will Doctor Blank find his name emblazoned because of some unusual feat in medicine or surgery, or because he has been invited to read a paper before some out-state medical organization.

On the other hand, news stories of the accomplishments of the local profession will appear in the local press with increased frequency, without mentioning the name of the physician. A member of the local society who feels he has had an unusual experience in his practice will contact the executive secretary of the society, giving such details as are necessary to make a good news-story. *The item will be prepared by the secretary* and copies given to the press representatives, *to be used as is.*

We long have granted that there are a lot of good news-stories in the daily life of members of our profession, many of these being of much local interest; but we never have believed it the province of an *ethical* physician to rush into print with a high degree of regularity, if ever. The plan worked out in this instance should be advantageous to all concerned, for the press gets additional, live news items, and the medical profession acquires a long-sought objective — the elimination of the blatant advertiser.

THE OBERLIN AWARD

The Council of the Lake County Medical Society has established the "Oberlin Award" as a memorial to the late Dr. Thomas W. Oberlin, who was one of the organizers of the society in 1898 and had carried on his professional work in Hammond since that date. Dr. and Mrs. Oberlin were killed in an automobile accident in March, 1941.

The award, a plaque on which will be engraved the name of the recipient and the year of the presentation, will carry the legend, "Presented by the Lake County Medical Society in recognition of significant contributions to the health and consequent welfare, security and happiness of the people of Lake County," and will be presented at the annual meeting of the society, the recipient being the guest of honor on that occasion.

The selection of the recipient of the award is to be made by the Council from a list of nominations submitted by an award committee.

The award will be granted to a person or institution not in any way connected with the medical profession or employed in any of the healing arts. Furthermore, the recipient must be wholly uncompensated for his health activity contributions.

Thus does this society perpetuate the memory of one of its founders, a man whose activities in medical organization work was known throughout the state. For many years "Tom" Oberlin was a member of the House of Delegates and long since became recognized for his ability to foresee the advancement the medical profession is making in our state and nation. He had not missed an annual convention in some three decades and his sparkling wit, together with his sage, sound advice, made him the center of all the activities of our annual meetings.

The Oberlin Award will come to be one of the outstanding records of accomplishment in the long history of one of our most active county groups.

WAR BONDS

We have had a lot to say about War Bonds and mean to keep hammering at it until every member of the Indiana State Medical Association is a *regular* buyer of these very worth-while bits of paper. Indiana residents are buying these by the millions of dollars; practically ninety per cent of all employes engaged in our munitions plants are regular buyers, the money being deducted from their pay checks.

In our larger mercantile establishments a similar set-up is followed, each employe being a regular buyer. Just here it might be well to state that it is not so much the size of the bond bought, but establishing the habit of buying them regularly.

But with all the money pouring in from the sale of bonds, there are too many citizens that have not been aroused to the necessity of participating in this activity. A casual survey has revealed that while plant employes are doing their part and the large corporations buying them in large amounts, members of the professions are laggards.

Personal solicitation, through letters from the War Savings Staff at Washington, have resulted in an increased sale to members of the professions, but not to the desired extent. Just now we are having a wave of "Bond Breakfasts," a new plan that apparently will sweep the country. Every one who attends these breakfasts does so after he has pledged himself to *buy a bond* during the course of the breakfast.

Just now we are meeting with a local committee which is arranging for one of these breakfasts, and in the preliminary discussion it was definitely stated that one of the chief purposes to hold these early-morning gatherings was *to enlist the profession as bond buyers*. The statement was made that "doctors are not buying bonds as they should."

Let us for a moment look this matter straight in the face. As an *investment*, War Bonds are tops — we know of nothing comparable in the way of safety and income. We have been asked, "Do you think payment ever will be made on those bonds you hold?" Our answer is that if the time should come when these bonds will be repudiated, then our dollars and our other assets will have exactly the same value as the worthless bonds. Such a question is purely inane.

A lot of folk do not understand that money from bond sales is ready cash in the pocket of our good Uncle Sam. The money you hand in at your bank today is in active operation about forty-eight hours later. And, right now, ready cash is the thing Uncle Sam needs most. Give him plenty of that commodity now; we'll talk about how it is to be repaid at another time. The biggest job we have on our hands — in fact the only job — is to lick the enemy, and in doing that we will have to spend a lot of money — and a lot of that money must come from your pocket and mine.

If you are not a *regular* bond buyer at this moment, get *started*. You can buy the little "E" bonds in denominations as low as $25.00. But if you buy one every few days, or every week, the first thing you know you will have accumulated quite a stock of them. They will cost $18.75 per copy and in ten years will have a value of $25.00. Pretty good interest, that!

But aside from the investment feature there is the matter of need for ready cash to buy the various implements of destruction. Much as we dislike to discuss it, we are in a war of extermination. We either have to kill off a large proportion of the population of the earth or get a massive dose of the same thing here in America. War Bond cash buys bullets and things, and we need a lot of them. We cannot win this war without bullets; we cannot buy the necessary number of bullets without ready cash — and that cash must come from you and me.

BUY WAR BONDS AND KEEP ON BUYING 'EM!

The following editorial, taken from The Journal of the Michigan State Medical Association, so clearly sets forth the present status of the Procurement and Assignment Service that we deem it most worthy of presenting to our members; it answers the numerous questions being asked by those interested in the enlistment program:

PROCUREMENT AND ASSIGNMENT

"There has been so much misinformation and misunderstanding regarding the activity of the Procurement and Assignment Committee and its relationship to the volunteer medical officer that a few simple statements should be made. From necessity these must be predicated upon the conditions existing in the middle of July but since most of these are statements of principle the possibility of drastic change is not likely.

"A physician cannot become an officer in the Medical Corps of the United States Army or Navy except of his own free will and accord. Doctors are not *wanted* as officers of the Medical Corps of the United States armed forces *exeept* of their own free will and accord.

"The Procurement and Assignment Committee of each state is selected by the Government of the United States. This committee selects from each county an advisory local committee. While in most cases they represent the previously society-appointed Medical Preparedness Committee, they do not function as a committee of the county or state medical society. The local committee has been asked to review the professional needs of the community to analyze each physician's value to the community. They were then asked to state whether each man in the age group is considered essential to the community or available for military service, bearing in mind the urgent need of the country in its desperate struggle against terrific odds for the

survival of freedom. The actions of the local committee are purely advisory; the final decision being made by the Procurement and Assignment Committee of the state.

"This state committee can declare a physician essential to his community for varying periods, balancing the needs of the community and the needs of the armed forces. The length of the time he is considered essential will be based upon the future needs of home and army. During the period that he is considered essential by the committee, a commission will not be granted and he will not be drafted.

"If one does not wish to become an officer in any United States medical corps he may signify it by not applying for a commission. If application has already been made for a commission, unwillingness to serve is evidenced by not appearing for the physical examination. If the examination is completed and passed the commission may be refused when it is offered. There is no legal penalty at any step. *Those who do not wish to become officers simply revert to the same status as any other citizens of the United States and the local draft board will call them to service in the same manner as any other citizen. There is only one exception: the fact that a commission in the Medical Corps was offered at a substantially higher monetary return than that of the ordinary soldier will be considered in determining the classification in 3A. Of course, at any time the Army may refuse to offer anyone a commission again.*

"If one does wish to be commissioned an officer in a United States Army medical corps, application should be made through the Medical Department Officer Recruiting Board who will authorize a physical examination. If this examination proves that the applicant is physically fit, a commission will be forthcoming provided he is not considered essential to the community by the state Procurement and Assignment Committee. Even this is not an insurmountable objection. A number of professional men have found substitutes for themselves in their communities and thus obtained a reclassification by the Procurement and Assignment Committee.

"The United States is in the midst of a desperate struggle for life. There is an acute shortage of medical officers. It is not a silly sentimentality to reiterate that the country needs them and if their absence does not seriously damage the health of the community, the duty is clear.

"A physician cannot become an officer in a United States medical corps except by voluntarily accepting a commission.

"*The United States needs medical officers.*"

Have you made your reservation for the Convention?

Editorial Notes

Never before in our history have we needed such safe, sane leadership as in the next few years to come, and we should be considering that very thing most carefully right now. Each of our county medical societies, the "grass roots" of organized medicine, should see to it that their officers to come will be men of more than ordinary ability, men of vision if you please.

For some years past we have heard the expression "Medicine at the Crossroads"; we believe that just now, medicine has definitely arrived at that point and the vital question is "Which way shall we take?"

Approximately five thousand physicians are graduated in the United States each year, and it is estimated that during the next three years this figure will be materially increased due to the step-up in medical education — the continuous school plan. This figure is estimated to reach 21,000 graduates. Each of these graduates, however, will be taken into the armed services immediately on completion of their interne year, practically none of them being released for civilian practice until the conclusion of the war. This will, of course, lighten the load to a very great extent, making it necessary for fewer established practitioners to enter the service. It is further estimated that by the end of the three-year period mentioned, practically every physically fit physician under the age of fifty-five will have been called into service. So, it is quite clear that our medical distribution problem will ever remain before us.

Deferment of physicians continues to be a perplexing problem, one that causes much concern to local procurement committees. Instances in which some one has "gone over the heads" of the local and state committees continue to crop up, thus adding additional problems to a group that has done a mighty good job of it up to this time. We trust that in the very near future it will have been determined that deferment is the job of these committees, not one to be handled by a self-appointed individual or group. We are engaged in the most hellish of all wars — we have just one job before us, a mighty big job it is. The Army needs (must have) a full complement of medical officers; there is but one group in the nation that *knows* the medical profession — the profession itself. We have never heard one complaint that these procurement committees were doing aught but making a good job of it; never have we heard one complaint of unfairness in the matter, so let's have these committees continue to carry on their good work without petty hamperings.

It had been anticipated that due to tire restrictions and the request of Governor Schricker that drivers reduce their speed to a maximum of forty miles per hour that there would be a marked reduction in the amount of gasoline sold within the state, with the result that the revenues of the Indiana State Highway Commission would be rather seriously reduced; however, such has not been the case. This is probably due to the fact that Indiana has become dotted with munition plants of all sorts, thousands upon thousands of Hoosier folk being employed therein. This, of course, means that most of them drive to and from their work and, even though pleasure driving has been curtailed in a high degree, gas sales have continued high.

An article on "Chronic Brucellosis" appears in the current number of THE JOURNAL. For some time this has been somewhat of a controversial subject, but in recent years the disease has come to be recognized as having a definite entity. During the past two years several of our larger and more progressive state medical societies have held symposia on the subject, which would indicate that the disease is not limited in its scope but is prevalent in many sections of the country. The trouble is, of course, that too often it is not recognized in its acute stage and therefore is untreated, and not until it has become a chronic infection do we learn what is going on. The diagnosis of brucellosis is rather easily made if one has laboratory facilities at hand, and it would seem that the treatment is highly successful. We would urge our members, particularly those located in the rural areas, to look into this matter and be on the lookout for this disease.

Trade or profession? Soon we will know just where we stand in that regard; whether the greatest of the professions will cease to be such and, legally, classed as a trade remains within the decision of the highest court in our land. Not that we in the least decry the tradesmen, for through the ages that has been an honorable title, but with the profession of medicine there has been for centuries past a heritage that has been handed down from generation to generation. We emerged from the age of superstition, when the "medicine man" was all-important; we learned through the interchange of experiences and, in the later years, through research such as never before had been known in the history of civilization. Now it is possible that a court decision will throw us back many years. It is possible that much of the incentive for further study will be lost; we may become a "trade" and thus become somewhat mechanized. Truly, the next decade or so will witness many changes in medicine, what with the impending court decision plus the post-war changes that are sure to come.

Dr. I. C. Barclay, councilor of the First Indiana Councilor District, has advised Evansville folk that for the duration there is a prospect that there will be a doctor available in that community for every 1,600 persons. He also, in an address before a local group, urged the people of that city to "give the doctor a break," by following the suggestions generally being made to laymen throughout the country.

Has your local medical society made plans for the assurance of a complete medical service in your community? We know, of course, that your local Procurement and Assignment Committee long since has cleared those members who are available for the armed services, a mighty important job, but it is equally important that a survey be made, particularly in the more populous counties, to ascertain just what the needs may be—then to plan to supply that need. Thousands of physicians are now in the services, other thousands will be called as the war goes on. We must, of course, take care of our armed forces, but it also is important that the civilian population receive their usual medical care. If your society has not made such a survey, we would suggest that it be done at once.

Just a few weeks hence and we will be headed for southern Indiana to participate in the events of our annual convention. It should be borne in mind that this convention will be of the streamlined order, all frills and much of the entertainment will be curtailed. It will be a War Meeting, one devoted mainly to the discussion of many of the problems that come to a nation in time of war. However, it is urged that our attendance be kept up. It is unreasonable to expect that every at-home member be present, but it is hoped that several hundred Hoosier physicians will find it possible to attend. And we would again remind you that if you have not made your reservations, you should do so at once. If the French Lick Hotel folk know about how many guests they will have for the occasion, they can better prepare for them. The latter part of September is an ideal time for a visit to the Cumberland foothills; Dame Nature is even now planning the gorgeous pageant that she will unfold at that time. And we know of no more delightful spot for those little rest pauses that so often appear during a medical convention. The paths through the woods and the winding walks through the formal gardens will be attractive to many; for some of us of a more advanced age, just to sit in a quiet corner of the massive porch, perhaps to daydream a bit, perhaps to watch the bird life and the abounding small animal life will indeed be a treat. Make your plans today; notify Tom Taggart that you will be his guest for the occasion, and help to make this one of our outstanding successes.

Have you checked into the advantages of a War Damage insurance policy on your residence and household goods? This is a very important matter, these days, since your ordinary fire insurance does not cover war risks in any degree. The cost of such insurance is not great, one dollar per thousand for the first year, and in the event there is not much loss from war causes during this year the rate will be correspondingly less for the next year. It is a government proposition well worth investigating. While we live in the central area of the country, Indiana is not *too far* removed from the possibility of war damage to residential property.

Dr. H. M. Husted, president of the American Academy of Ophthalmology and Otolaryngology, is quoted by the press as deploring the tendency of some women to discuss in grewsome detail their surgical operations, feeling that this has a tendency to make others delay surgical procedures upon their own persons. Maurice Early, of the "As The Day Begins" column in the *Indianapolis Star*, quaintly criticizes this stand of Dr. Husted: "How does he expect the women to keep in proper fettle if a ban is imposed on talking about 'my operation?' The subject has afforded outlets for persons who might be unable to talk about anything else, at least with the erstwhile principle."

Venereal disease control, especially in those areas where are located thousands of our young men in the armed services, begins to appear as having some degree of reality, whereas it had formerly been the dream of those who sought such measures. Community after community that had for a long time listened with unheeding ears to the importunities that venereal disease control be exercised are now convinced that Uncle Sam means business and that, through the United States Public Health Service and the Army, this menace to American youth must be controlled. In a border town where for years open gambling, vice and what have you prevailed for years, a change, such as we never had expected to see, is in the near offing—all due to the orders of Federal authorities. Taverns that had long since lost the keys to any of their doors now will close at the appointed time; "hostesses" are disappearing from these haunts; strip-tease "floor shows" are being toned down immeasurably and in our opinion will soon be taboo. Prostitution, the oldest of the professions, of course can never be eliminated from society, but it can be—it will be—controlled in the areas in which hundreds of thousands of our young men are in training. "Out of Bounds," only three words but words that are ominous in sound, is a term no community wishes to have applied to it, yet that is the final threat of the Army and it brings recalcitrant officials of our cities and towns right up to the mark. "Out of Bounds" means that that community is *closed* to men in the armed service, and that means CLOSED! Verily, we believe that venereal disease control is here, and we trust that it is here to stay.

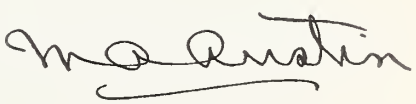
Although there has been a decided decrease in the number of automotive fatalities within our state during the current year, there is little evidence that careless driving and driving while in some degree under the influence of alcoholics has shown much of a decline. Our courts continue to be clogged with such cases, and it is quite evident that such offenders still are too numerous. Much of the decrease in such accidents is, of course, attributable to a rather marked restriction in driving, chiefly due to the shortage of rubber, together with the approaching gas rationing. Police authorities, however, maintain that even with these curtailments, there still are too many preventable accidents, and already there is a demand for a tightening of the laws relative to the issuance of drivers' licenses. Only a few weeks ago an Indianapolis driver, said to have been the victim of an attack of epilepsy, lost control of his car in a downtown district, resulting in the death of several persons and the serious injury of others. Indiana too long has been lax in her requirements to be met by all applicants for a driver's license. It is to be hoped that the 1943 General Assembly will see to it that these shortcomings are remedied.

For several mornings past we have been getting downtown early; as a matter of fact, we have been reporting at a seven o'clock breakfast as a member of a local committee planning a Victory Bond breakfast a little later on. However, the early hour in no wise disturbs us, since for years we have been saluting the rising sun almost every day. But not so with many other members of the committee. Most of them get there, but when they arrive it is easy to determine who among them is making quite a sacrifice in getting downtown so early. One man, the very first morning, requested that the chairman refrain from asking him for an opinion "until later in the morning when I am awake." To us the refreshing thing about this is that a rather large group of busy men will find time to sit in a series of conferences, planning a program such as we have in mind. It involves almost innumerable committees, committees that really will do things. Several hundred men are expected to attend this breakfast, each of whom in accepting the invitation pledges to buy a bond in some denomination. The main purpose of the breakfast is to sell bonds, of course, but it is hoped that as a result of the program several hundred folk will acquire the habit of regular bond buying. Incidentally, the discussion of the program revealed the fact that professional men are not buying bonds as they should; *this includes the medical profession.* We are officially told that too many physicians in every state in the nation are buying no bonds whatever. This is a serious indictment and something should be done about it. That "something" means that if *you* have not already established the habit of buying bonds it will be well to form a new habit right now!

President's Page

DEROGATORY

"Now is the time for all good men to come to the aid of their party" is the theme song of most uneducated typists like myself, who have acquired some efficiency as a result of long practice with the "hunt and peck" method. But at this time this little slogan is very pertinent to every member of our profession, for we are facing regimentation or unionization. Men in medical organization work have assumed time, work, worry and responsibilities at an unknown cost to themselves and for which many never ask or expect even their travel expenses. This little job of mine gave me a new title for doing the same work I have done for years. As a diversion, it has paid me just about enough to pay for my typewriter ribbons. But the real reason for my taking so much punishment and liking it so well has been the fact that it has given me the acquaintance of other men who are similarly interested in medical philanthropy. BUT INSOFAR AS HAVING THE ACTIVE COOPERATION OF THE GREAT MAJORITY OF THE PROFESSION, WE HAVE NEVER HAD IT. Doctors seem to become self-centered egoists whose contacts seldom go beyond their patients and a small group of others in their church or club, and so long as they can keep up their dues and payments on indebtedness their outlook is rarely beyond the horizon of the country club. They are ideal citizens from the standpoint that they attend so religiously to their own business and interfere so little in the affairs of others. THE GOLDEN AGE OF MEDICINE HAS PASSED. We must anticipate a leveling of the field in which the professions lived on the hilltops and the craftsmen in the valleys. As labor became organized so profitably to its organizers, OUR OWN SECURITY WAS UNDERMINED BY OUR SELF COMPLACENCY, AND WE NOW FIND OURSELVES CLASSED BY THE FEDERAL COURT AS A TRADE ORGANIZATION. Our various national boards took it upon themselves to classify medical men according to their training and ability. The American Medical Association has raised the standards of medical education as never imagined possible. The American College of Surgeons has done the same with hospitals. But all this high-hat and efficiency stuff may soon pass into the discard now that the cultists have unionized and affiliated with the American Federation of Labor. They may be as much entitled to care for patients in our hospitals as medical graduates, or make us liable for damages if refused, since "medical practice is now a part of trade and commerce." And I can imagine that our southern Democratic politicians in Washington, who have so zealously fostered the New Deal, go back to their homes and with a mint julep in their right hand salute the pictures of their grandsires with the toast, "TO YOU AND TOMORROW," for their memories still carry the scars of yesterday's carpetbaggers, and it must be sweet revenge to see a more devastating political pillage being wrought over the North, the West and the East than ever they suffered from '65 to '72. Washington announced that on June first the civilian pay roll on that date included 2,066,873 names. If the doctors get it in the neck it is because they have done nothing to prevent it. The pittances they have paid to their local and state medical societies should be compared to the labor unions in Chicago. A carpenter pays an initiation fee of $100, $41 the first year in dues and $2 a month thereafter. The PWA now have to affiliate with the Hodcarriers' Union, pay $40 initiation fee and $2 a month thereafter. In Hollywood they do even better, $250 is the initiation fee of a junior set dresser, and $500 when he gets his seniority, with two per cent of his wages as dues. WHAT DID THE HOUSE OF DELEGATES DO WHEN IT WAS SUGGESTED WE RAISE A FUND FOR THE STATE BOARD OF MEDICAL REGISTRATION AND EXAMINATION BY A DOLLAR A YEAR FEE FOR REGISTRATION? Was it a joke or just ignorance? I think it must have been the latter, for I was seriously asked the other day what my SALARY was as president of the state organization. So I seriously answered, "I have a budget of $200 a year to pay for my actual expenses. It allows $2 a day for meals and $3 for a room if I stay overnight. A bath is not included, so I bathe before I leave home and again when I return, or on Saturday night. They also allow me three cents a mile to pay me for using my own car when I travel, and my automobile costs me seven cents a mile to run"—that's how I got rich.



INDIANA'S MEDICAL MARTYRS AND HEROES

THURMAN B. RICE, M.D.
Department of Bacteriology and Public Health
Indiana University School of Medicine
INDIANAPOLIS

Yellow fever seems a long way from Indiana in these times, and yet this state has produced its fair share of yellow fever medical martyrs and heroes. The stories of the devoted persons who left their homes and risked their lives in the effort to control "Yellow Jack" deserve to be told because they brought great credit upon our honored profession. Five physicians and three lay nurses—one of them a woman—left Indiana and went to Memphis, Tennessee, in 1878 to help care for the population grievously stricken with yellow fever. At least four of the physicians became ill of the disease while there and two of them died. We have been able to gather considerable information about each of these persons and pictures of all of them except two of the physicians.



Dr. J. G. E. Renner

First in interest is the story of John George Emil Renner, M.D., of Indianapolis. Dr. Renner was born in Germany, January 20, 1850, and received his preliminary education there. As a young man he was restless and became a soldier of fortune, serving in the French Army in Algiers. The story is told that while serving in the Foreign Legion he took great risk upon himself in attempting to bring food to a comrade who was being punished by being imprisoned *incommunicado* in a sand pit under the blazing desert sun. After his release from the French Army he came with two brothers to America. Later he became separated from the brothers. At first he settled in New York and afterwards went to Connecticut.

While living in Arkansas he saw a great deal of various kinds of fever and became anxious to study medicine. He attended the University of Louisville Medical School where he graduated in 1876 with highest honors. Not only did he take the M.D. degree from that school but also *received four other diplomas in specialties.* He is known to have spent a year as an understudy to Father Damien on Molokai Island, Hawaii, hoping that he might be chosen as a successor to Damien as the physician for the lepers there interned. Later he came to Indianapolis where he rapidly made a host of friends. He became a naturalized American citizen early in 1878.

Being of a very serious and altruistic nature he became converted to Christianity while a student in Louisville and after coming to Indianapolis was a very strict attendant at the Second Presbyterian Church, which he joined. He was very much interested in a Sunday School class taught by General Pease, president of the Baltimore and Ohio Railroad. It was a class of young professional men and very active indeed. He was extremely well liked and respected by both young and old. His friendliness and high-mindedness were particularly noteworthy.

The following quotation from Kemper's Medical History of Indiana (pp. 332-333) will explain itself:

> **On the 27 of August 1878, he announced his conviction that his path of duty would lead him to the succor of the victims of yellow fever at Memphis, Tenn., and, despite all remonstrances of friends, the evening of August 29 found him domiciled in Memphis and ready with his share of help for the afflicted. He remained engaged in his self-imposed duty, rendering all the help that stricken humanity can have from one man until September 11 when the relief-extending hand was itself paralyzed by the scourge whose ravages it had helped to mitigate, and after five days torture on Sept. 16, 1878, his light went out and his life was laid as a sacrifice upon the altar of our common humanity.**

The author set out to find a picture of this heroic man, little supposing that it would be such a difficult task. He had no relatives or descendants in Indianapolis, and, of course, it was quite impossible to find his people in Germany. Then it was learned that he had been the fiance of Miss Julia Sharp of



The Renner Monument in Crown Hill, Indianapolis

Indianapolis who died unmarried only a few years ago. Her sister, Miss Ann Sharp, remembered him very well and recalled that he had spent his last evening in Indianapolis with Miss Julia. Miss Ann, herself a bed-ridden invalid of advanced age, thought that somewhere among her possessions there was a picture and urged her nurse and maid to find it, which they did. The picture reveals that he was a handsome, even striking, man in personal appearance.

It is said that very rarely indeed has the city been so moved as on the occasion of his memorial services. The body was, of course, cremated in Memphis, but the Second Presbyterian Church arranged an elaborate service in his memory. Miss Sharp's mother wrote a sentimental poem and a little memorial folder was published. This folder, in the possession of Miss Ann Sharp, was presented to the author who in turn gave it with the original photograph to the Indiana State Library for final preservation. The sermon was preached by Dr. William Alvin Bartlett. The Medical Society attended in a body after meeting in Dr. Renner's office. Money was raised by popular subscription for the erection of a suitable monument in Crown Hill Cemetery. This is an imposing limestone marker about four by six feet at the base and about fifteen feet tall. It is placed on a lot belonging to the Second Presbyterian Church, about one hundred yards northwest of the Chapel. The inscription is as follows:

J. G. E. Renner, M.D.
born at
Eschenred, Hesse
Darmstadt, Germany
January 20, 1850
Died at Memphis, Tennessee,
September 16, 1878
Of yellow fever. A victim in
the cause of humanity.
Erected by his fellow members of the
Second Presbyterian Church, Indianapolis,
as a tribute to his Christian heroism.

Both Dr. William Niles Wishard and Dr. Charles E. Ferguson have told the author that they remember the man and the services very well indeed. The former said of him, "He was a fine man, an active Christian, and a man of fine medical training. . . . He was a handsome man, tall, broad-shouldered, keenly intelligent, kindly-faced, and constantly manifesting interest in his professional and church relations."

From the city of Fort Wayne comes a stirring story of those eventful days. Dr. J. O. Goldsmith Gorrell likewise volunteered his services and died a few days after arriving on the field of action. The *Fort Wayne Daily Sentinel* of September 21, 1878, tells the story most graphically:

A BRAVE MAN GIVES UP HIS LIFE

The *Sentinel* of yesterday reported that Dr. Gorrell, of Maples in this county, was ill of yellow fever at Memphis, and that his condition was very critical. A telegram received this morning by Major Zollinger announces that the doctor died last night.

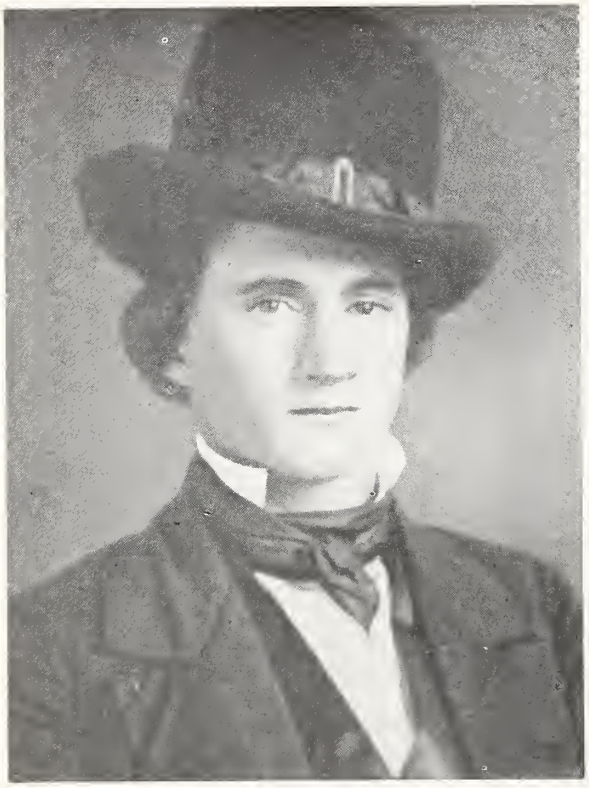
About three weeks ago Dr. Gorrell volunteered his services to go to Memphis and attend the sick. He had served in the army, spent several years in the south, and in 1862 had charge of a hospital in Memphis. At that time he attended yellow fever patients, and was himself attacked by the horrible disease, from which he recovered. For these reasons he believed he would live through the epidemic, and his offer was accepted.

The doctor reached Memphis about two weeks ago, and was assigned to duty at the Printer's Hospital. He labored night and day with his patients and met with splendid success until last Sunday when he was taken ill. The *Gazette* this morning publishes a letter from him dated the 14th in which he gives a thrilling account of the terrible scenes he was passing through. He declared that his army experience was comparatively nothing. On the 14th he visited seventy-eight patients and climbed more than three thousand steps.

The doctor was one of the world's heroes. It is accounted the height of nobleness to give up one's life for a brother or friend, but Dr. Gorrell laid his life down cheerfully, manfully, and bravely for people of whom he had never seen or heard. Loftier heroism was never exhibited; truer bravery was never shown.

Dr. Gorrell was a brave soldier, a skillful physician and a kind husband and father. He leaves a wife and five small children in Maples, whose means of support are thus taken away from them.

Concerning the story of Dr. S. H. McCormick we can find little. The *Indianapolis Journal* of September 23, 1878, has the following item:



Dr. J. O. C. Gorrell

Dr. S. H. McCormick of Terre Haute is reported ill among the Memphis sick.

The Keating book (*History of the Yellow Fever—Epidemic of 1878*) which tells the story of the epidemic says (p. 370) that Dr. S. H. McCormick of Saline City, which is near Terre Haute, arrived in Memphis August 31, took sick September 7 and recovered.

The *Terre Haute Express*, September 11, 1878, has this to report concerning the epidemic:

> I am distressed to report, of our volunteer medical corps, stricken down with the fever Dr. McCormick (and eight others). At this rate it will not be long until all the living will be converted into a burial corps.
>
> R. A. Mitchell,
> Medical Director.

This note might easily mean either that Dr. McCormick was ill or that he was dead. The following note in the same paper of September 19 makes the situation clear:

> Dr. McCormick of Saline was last week reported in the Associated Press dispatches to have died in Memphis. His friends yesterday received information from the Howard Association that the doctor had yellow fever, had not died, and is now out of danger.

Mr. G. C. Murphy of Saline City and Mrs. Fannie Huffman of Clay City remember Dr. McCormick rather well. They describe him as a handsome man with shining blue eyes, dark hair, well-kept mustache and small, pointed beard. He was small, slender, erect, "full of fun, and very liberal" (both of them had worked for him). Both said that he was a "very good *fever* doctor," which probably accounts for his wishing to go to Memphis. He would be very liberal with his time and would say, "I must sacrifice my time and life for others." These people believe that he died at Memphis. If he came back at all, they are very sure that he did not stay in Saline City. He is supposed to have left a widow and a daughter, named Nellie, who was three or four years old at the time. Nothing is known further in spite of the fact that every possible clue was carefully followed.

That Dr. McCormick did not die in Memphis is proved by an item in the *Terre Haute Express* of November 13, 1878:

> A Hero of the Pestilence—Dr. S. H. McCormick and wife of Saline City, Clay County, are in the city, stopping at the St. Clair Hotel, and on their way home from Memphis. The doctor went there on the 29th of August to aid in fighting the yellow fever. He had been there but nine days when he himself was attacked. It will be remembered that at one time it was reported that he had died. He left Memphis twenty days ago and stopped with some friends at Bloomington, Ind., until yesterday. He is entirely free from the fever, but it caused renewed suffering in a wound received in the right hip at the battle of Stone River, during the war, and it is still very painful. The doctor is in good spirits and looking very well. He will leave this morning for his home at Saline City.

In those times Saline City was a thriving, even booming, lumber town. There were several sawmills and a large stave factory. A large artificial lake or swamp had been made so that there might be an abundant supply of water power for the mills. This swamp bred countless mosquitoes, and McCormick had come to the community because there was so much "fever," in the treatment of which he was considered to be especially competent. The community is now badly run down and gives little evidence of its former thriving business. The house in which Dr. McCormick lived still stands just north and east of the main intersection of the village. The Recorder's Office at Brazil revealed the fact that he had owned the property in which he lived but gave no hint as to where he had gone after leaving Clay County. The author would be very glad indeed to get trace of him or to learn of someone who might supply a picture.

The Keating *History of the Yellow Fever—Epidemic of 1878*, names two other physicians who volunteered their services. Dr. Thomas M. Smith of Rockport will be mentioned first because he contracted the disease and was made very ill although he finally did recover. We have a letter

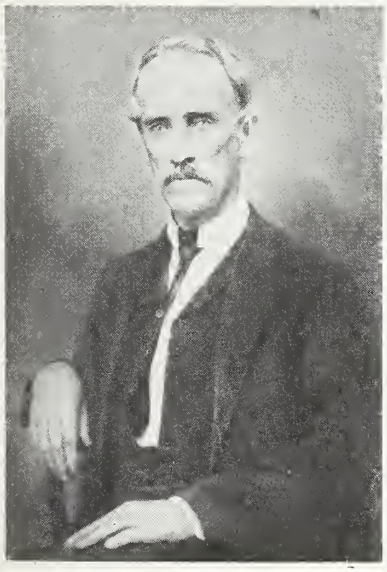
from his granddaughter, Miss Mattie Smith of Santa Ana, California:

Dr. Thomas M. Smith left his practice in Rockport, Indiana, in 1878 and went to Memphis to help fight the yellow fever. He had the yellow fever himself. Dr. Smith wanted someone to apply the needles but could get no one to come near him except a negro woman who had had the fever. He showed her what to do so she could give the treatment. He got well and came home. The Howard Medical Association later sent him a gold medal and certificate of honor for the service he had rendered at that time.

Dr. Smith served in the Fourth Second Regiment in the Mexican War. He also served as Captain of Company F, Second Regiment, Minnesota Cavalry in the Civil War.

I do not know where he was born or what year. He died some time during the summer of 1881 of consumption at about 68 or 69 years of age. He moved with his family from Brown County, Ohio, in 1864 to Spencer County, Indiana. From Indiana he moved to Minnesota about 1855 and lived there until after the war when he went to Louisville, Kentucky, about 1870 to Medical School. He moved to Rockport, Indiana, about 1876.

Recently we have been in communication with Mrs. Emma Smith of Greenfield, Ohio, who has promised to send us a picture of the old medal mentioned in the letter.



Dr. Thomas M. Smith

Concerning Dr. James E. McGrew of Terre Haute we have been able to learn very little. The *Terre Haute Express* of September 10, 1878, gives an Associated Press dispatch which says that Dr. McGrew of that city "has arrived in Memphis and is at work among the yellow fever sufferers." There is a tradition among some of the older physicians of Terre Haute that in his later years he was not very ethical and this may be the reason that it is hard to find anything about him. It is believed that he did not have the disease. Our correspondent in Terre Haute gives the following information:

McGREW, JAMES E.

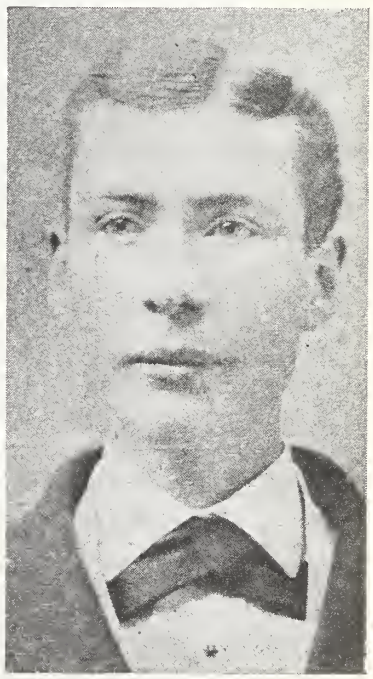
Born Vigo County, 1850. Licensed April 17, '77, and located at 670 Ohio Street, Terre Haute. Stocked office with an imposing array of electrical apparatus. Filled half pages of the newspapers with descriptions of same and of his wonderful skill. Suddenly left city about June.

Used to be an ethical M.D. in Terre Haute. (9 Med. Coll. of Ind. 1877) Polk's 86/90. Feb. '82 County Society honorably dropped him from membership on account of his having abandoned the practice of medicine and chosen another walk in life.

Located in Terre Haute '77. Joined Medical Society Feb. '80.

"Inventor of McGrew's Uterine Dilator, the best of its kind."

Three other persons, all laymen, deserve mention in this story of courage. The first of these was Charles Evans of Indianapolis, a very close friend of Dr. Renner. As soon as Evans heard that his chum was ill, he went at once to Memphis to take care of him. After Renner died it is believed that he stayed awhile at least to take care of the sick, but even the family of Evans knows little or nothing of the details. As a matter of fact a son, Elliott Evans, of Chicago, an attorney, was quite surprised to learn of this episode in his father's life. (Another son will be remembered as Charles "Chick" Evans, the renowned golf expert of a decade or so ago.) Opposite his name in the copy of Keating's book belonging to the State Board of Health someone has scrawled the words, "Sept. 2. Had fever and got well." We have been unable to verify this note as to his having had the fever. Certainly he could not have had it as early as September 2 because he did not go to Memphis until after Renner became ill on September 11. Mr. Charles Evans returned to Indianapolis and was the first librarian of the Indianapolis Public Library. He was one of the charter members of the Indianapolis Literary Club and is commonly considered the spark which really started the organization. He made a very important contribution to the cul-



Mr. Charles Evans



John Wood

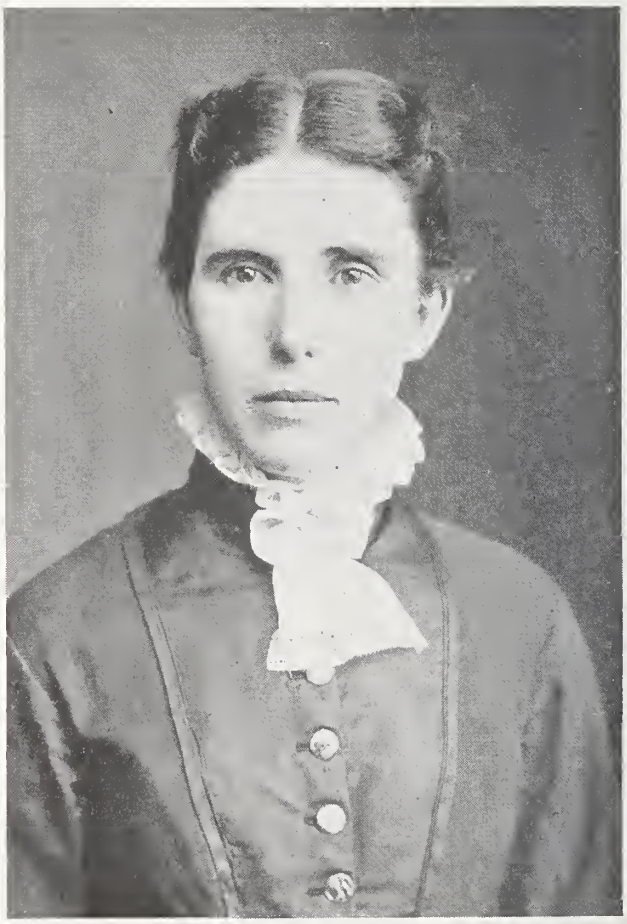
tural life of Indianapolis.

Another of the lay nurses was John Wood of Roswood (this town now extinct), Indiana. From his daughter, Mrs. Minnie Wood Farnsley of Evans Landing, Indiana, we learn that her father was born in 1836 and died in 1889. We have been unable to learn whether or not he suffered from the disease while he was at Memphis.

Last, but by no means least, among those who were willing in 1878 to make a sacrifice for their fellow men in trouble is Miss E. M. Flannagan. The following is an account of Miss Flannagan which was published in the January, 1942, issue of the *Monthly Bulletin of the Indiana State Board of Health:*

> Sixty-six years after her heroic service should have been recognized, we are very pleased indeed to tell the story and show the picture of Elizabeth (Eliza) M. Flannagan, who is entitled to be regarded as a medical martyr.
>
> Miss Flannagan was one of two sisters born in Ripley County about 1856. Her parents died and she was taken as a ward of a Friend's Church at Butlerville in Jennings County. She was a very bright girl and was sent to Sand Creek Seminary. Later she was a student of the Indiana State Normal School and while there answered a call to go to Memphis, Tennessee, in the fall of 1878 to help take care of yellow fever patients. She gave up her school work and started out. As she approached the city, a train conductor strongly urged her to go back and even offered to pay her fare back to Terre Haute if she would return to her home and school. She went on, however, and spent several weeks nursing the sick at Memphis. She herself was attacked by yellow fever but recovered and returned to Terre Haute to finish the school year in 1879.
>
> After this she taught school for a while, and there is an amusing story told of how she handled a bunch of big, rough boys who wanted to break up school. Later she served as a practical nurse and also published the *Terre Haute Enterprise*, which was a paper devoted to the temperance cause.
>
> In 1881 while living in the home of J. S. Van Cleave, 505 South Fourth Street, she contracted typhoid fever and died October 8, 1881. We have understood that she contracted typhoid while volunteering her service as a practical nurse for a case of typhoid.
>
> Dr. M. B. Van Cleave, who was a small boy six or seven years old at the time, remembers her very well indeed as a pleasant person, but one who was extremely firm and determined. We are indebted to him for a picture of Miss Flannagan. Supplemental to this picture we have the information that she had real dark auburn hair.
>
> In digging out these facts and this picture, in addition to Dr. Van Cleave, we are indebted to Grover Van Duyn of the State Teachers College, A. R. Markle of Terre Haute and Mrs. Lizzie Cox of Elizabethtown.
>
> Miss Flannagan is buried at Hull Cemetery near Terre Haute.

There are other connections of the state with this dread disease—it seems strange that this should be true. There is hardly space to go into detail with



Miss Elizabeth M. Flannagan

them however. We must mention the fact that it was in Indianapolis, in the old German House, now the Athenaeum, in the very room indeed in which the Marion County Medical Society met for many years, that Walter Reed read his Preliminary Report announcing to the world that yellow fever is spread by the bite of a mosquito. The date was the afternoon of October 23, 1900. Little attention was given to the paper at the time. The *Indianapolis News* of the following day had this to say of the event:

> Surgeon Walter Reid (name misspelled) of the United States Army, who was sent to Cuba to make a personal investigation of the yellow fever scourge, received permission to read his paper, "Some Observations on the Yellow Fever in Cuba." The article was listened to with absorbing interest and the surgeon was thanked by the Association.

The paper was not on the regular program and there is a rumor to the effect that he had to plead very hard with the authorities of the American Public Health Association to get a place on the platform. This was probably the most important scientific discovery ever made by an American physician.

We shall tell finally of John Kissinger, who still lives in Huntington, Indiana. His role as a member of the Walter Reed group is rather well known. Just the same the story is well worthy of repetition. Kissinger was born in Henry County, Ohio, July 25, 1877, but was brought to Indiana by his parents when he was only two years old. At that time he lived near Liberty Mills in Wabash County. In 1896 he enlisted in the Third Indiana National Guard, and from there he mustered into the United States Army with the 157th Indiana Volunteers in 1898 when the Spanish-American War was on. Later he was transferred to the Hospital Corps. It was in his capacity as a private in the Hospital Corps that he learned of the experiments being made by Dr. Walter Reed and his staff concerning the etiology of yellow fever. He was much interested from the first.



John Kissinger of Huntington, Indiana, the first person to suffer from yellow fever as a controlled scientific experiment.

Up to that time Major Reed and his fellow officers had made certain experiments upon themselves, and as a matter of fact Dr. Carroll had been made very ill with the yellow fever and Dr. Jesse Lazear had actually died of it. We shall not repeat these well-known details. It was clearly necessary that other tests on human beings be made. It is a tradition among medical men that they are expected to volunteer at such a time, but in this case the tradition must of necessity be ignored because the trained staff of medical men was far too small to stand such inroads as would be necessary, besides in such case there would be no one left to do the experiment. It was not easy to ask nonprofessional men to volunteer for such service, but Major Reed decided to try it anyway. The danger was explained to the men before the request was made. Privates John Kissinger of Indiana and John J. Moran of Ohio stepped forward. They were told that they would receive a bonus for their services. The men refused the money, however, and Kissinger is reported to have said, "We volunteer solely in the interest of humanity and the cause of science." Major Reed touched his cap to the men and said, "Gentlemen, I salute you."

Kissinger was the first person to be inoculated with the yellow fever by the bite of a mosquito known to have been contaminated by biting a known case, *the whole experiment being conducted under rigidly controlled conditions.* He developed a real case of the disease and barely escaped dying. Finally he did recover, although it was many years before he was really completely well. During the years of invalidism he and his wife had a very hard time making a living. Finally, he was given a home and a pension, so that now he lives in comfort and a fair degree of health. He received the Congressional Medal, February 28, 1929, and on May 15, 1940, received from the Cuban Government the Gold Cross Merit Order of Carlos J. Finlay. It will be remembered that Finlay was the Cuban doctor who first insisted that the mosquito was the vector of the disease and who in-

fluenced Walter Reed to conduct his experiments along that line.

These men—and women—were real martyrs. It is true that the eight people from Indiana who went to Memphis in 1878 did not make any known contribution to the understanding of this disease, but they did what they could and they are an honor to the state and to the profession. It has been a great privilege to be able to do them homage. May their example stand in our memory!

SOME PROBLEMS OF PHYSICIANS ARISING OUT OF WAR CONDITIONS

ALBERT STUMP, Attorney
Indiana State Medical Association
INDIANAPOLIS

I.

THE DISPENSING OF MEDICINES FROM A DOCTOR'S OFFICE WHILE HE IS IN THE ARMY

Physicians who have been called into service may have patients concerning whose medical needs they believe they have acquired special and accurate knowledge as a result of having treated and studied their cases over an extended period of time, and who they believe may need further medication with respect to which they are more competent to form a professional judgment than a new physician would be who has less acquaintance with the patient. The patient may desire the continued services of the physician who has gone into the Army, and the physician may desire to render such services.

The question that arises out of such circumstances is whether a physician can lawfully give prescriptions by mail which may be filled either from his own stock of medicine left over at the time he joined the Army, or by some druggist. The profession would, no doubt, look upon the development of a medical practice by mail as being highly undesirable, not to be recommended, and probably unethical. The question I am answering, however, is not whether such practice would violate the ethics of the profession, but the purely legalistic question as to whether it violates the law.

The practice of medicine is defined by statute to include healing, curing or relieving, or attempting to heal, cure or relieve those suffering from deformity or injury or disease of mind or body. It involves the making of a diagnosis and the assumption of the responsibility for the treatment to be given. The relationship of physician and patient in cases where the physician undertakes to diagnose and prescribe by mail is no different than what it is where diagnosis and prescription are made upon personal inquiry and examination. But there is the possibility that an inference of negligence could be drawn because of the fact that physicians ordinarily do not diagnose and prescribe by mail.

Those who do not exercise their own judgment and discretion with respect to dispensing medicines but follow the directions of a physician in dispensing medicines are not practicing medicine. They may be practicing pharmacy or they may not be engaged in the practice of pharmacy, but may be acting only as agents of the physician, and in neither event would they be practicing medicine. The medical practice in the treatment of a case where the doctor undertakes to give that treatment by mail is still the practice of medicine so long as the physician does not relinquish or abandon his responsibility for the diagnosis and treatment.

If a physician authorizes and directs some agent or servant, such as his office girl, to refill prescriptions he may have issued some time in the past, or to dispense some medicine from his own stock as he has done in the past, at the responsibility of such agent or servant as to whether the patient needs the additional medicine, then the physician is violating the law in that he is aiding and abetting another person to engage in the practice of medicine without a license, assuming that such agent or servant does not have a license.

Whether the agent or servant, in dispensing the medicine that may be in the stock belonging to the physician, is practicing pharmacy depends on the facts in the particular case. If the agent or servant fills the prescription even from the doctor's own stock of medicine and makes a charge upon the basis that she has rendered a professional service in compounding or preparing the prescription, then she practices pharmacy. But if she merely hands out the medicine in conformity with the orders of the doctor and does so as a general employee of the doctor, then she is not practicing pharmacy. She then occupies the same position that she would if the doctor were present, and she performed only the manual service of putting into some box or bottle the medicine already prepared under the supervision and direction of the doctor.

Finally, if a physician undertakes to prescribe by mail he assumes a grave risk of liability for negligence. If something would go wrong with the case, I think it would be very difficult to prove that the physician was giving the care and attention ordinarily given by physicians if it were shown that he was diagnosing and prescribing by mail. Physicians do not ordinarily diagnose and prescribe in that manner, and a departure from the practice ordinarily followed in the same or similar localities by physicians in good standing is evidence of negligence.

II.

MAY NURSES BE EMPLOYED BY HOSPITALS OR PHYSICIANS TO ADMINISTER ANESTHETICS?

The practice of nursing is not defined by statute, but the practice of medicine is. Whatever comes within the definition of the practice of medicine could not, of course, be included within the meaning of the word "nursing" as used in the statute pertaining to that profession. In the absence of a statutory definition the courts accept the commonly understood meaning of a word, and verify that meaning, as the courts accept it, by reference to dictionaries. The dictionary definition of the verb "nurse" is "to take care of or tend, as a sick person or an invalid; to attend upon." The definition is vague and indefinite. The same descriptive language could be used to tell what a physician does. So the exclusions from what constitutes nursing are to be determined by the application of the definition of the practice of medicine. The result is that in the care of a sick person the nurse does anything which does not constitute the practice of medicine.

But it is impossible to draw a distinct line between the two professions by the statement of a generalization, which would leave no question as to what was the practice of medicine and what was the practice of nursing. Nurses frequently give hypodermics. In a strict sense the administering of a hypodermic might be regarded as surgery. In industrial plants where first aid offices are maintained, nurses are frequently in charge. They apply antiseptics and bandage wounds where minor injuries are involved. But again, in a strict sense, that is the practice of medicine.

In the administering of an anesthetic, the anesthetist is relieving the patient from pain that would otherwise be suffered. And among other things that constitute the practice of medicine is the relieving, or attempting to relieve, those suffering from injury or disease of mind or body. With reference to this definition the Attorney General of the state of Indiana, some years ago, held that the administering of an anesthetic is the practice of medicine.

But where the nurse acts as the technician in the administering of an anesthetic there arises the same uncertainty as is present when the nurse assists a surgeon.

As a practical matter, the courts have often held that where surgery is performed the one or more persons who have immediate charge of the performing of the surgery can be said to be in general charge of the entire care of the patient through that treatment. Some courts have held that there may be divided responsibility. For instance, in some cases it has been held that the surgeon is not liable for the enclosing of a sponge where the incident resulted from the mistake in the count made by nurses who were not in the employ of the physician, and where it was shown to be the custom of surgeons to rely on that count. This rule, however, has not been followed in Indiana. The rule in this state is that the jury shall decide whether the physician was guilty of negligence if he depended on the nurse's count of the sponges.

If we accept the general principle that the surgeon who has been employed to perform the operation is in general charge of the whole procedure, then it is possible that the nurse might act as a technician under the surgeon's direct and immediate supervision with respect to anesthetizing the patient.

I have been able to find no cases which would indicate that there could not be a separation of the whole procedure of surgery into two parts, one consisting of the anesthetizing of the patient, and the other of operating him. There are cases which hold the physician-anesthetist separately responsible for the anesthetizing; and that principle, I believe, is sound where the anesthetist is a physician and as a physician undertakes to perform that service in the practice of medicine.

If a physician as an anesthetist takes upon himself the responsibility of the anesthetizing of the patient, it would then follow that he, as such anesthetist, could employ a nurse as a technician to work directly under his personal supervision and direction. In order to avoid the result that the nurse would be practicing medicine in giving the anesthetic, the physician who had charge as the anesthetist of that patient would have to give such close personal supervision and direction as would be required for him to discharge his responsibility as the physician-anesthetist. The depth of the anesthesia, the use of stimulation, or whatever other problems might arise involving the diagnosing of the situation as it developed from time to time, would all be matters for which the physician-anesthetist would be responsible. So long as his judgment and discretion controlled the anesthetization he would be the practitioner of medicine in that regard.

If a hospital employed a nurse to act as an anesthetist without any supervision or control of a physician, but entirely upon her own judgment and discretion in taking care of the patient, then the hospital, even though a charity hospital, might be liable for bad results from the anesthetic. This is a possible liability that might rest upon the ground that the hospital had employed one who was not a physician to practice medicine, and who, not being a physician, would not be a competent employee to render such service. But in such a case the surgeon might also be responsible if he knew that the anesthetist was a nurse and was acting as an anesthetist solely upon her own judgment and discretion. The liability, if any, of the surgeon might rest upon the theory that the surgeon was in general charge of the whole procedure under such circumstances.

SUMMARY

1. The giving of an anesthetic by one who assumes the responsibilities with respect to that procedure is the practice of medicine.

2. The surgeon may assume such responsibilities, with respect to the entire procedure, as to leave the actual manual acts of administering an anesthetic in the class of work done by a technician.

3. The surgical procedure may be divided so that one is responsible for the anesthetic and the other for performing the operation, if both are physicians.

4. Where the anesthetizing is a responsibility to be kept separate from the operation it can be accomplished by having a physician-anesthetist.

5. The physician-anesthetist may have technicians under him, but he is responsible for such close supervision and direction as to leave to such technicians only the technical tasks of anesthetizing, with the judgment and discretion of the physician-anesthetist in actual control of the anesthetization.

PHYSICIANS TO MEET THE NEEDS OF THE ARMED FORCES

WAR MANPOWER COMMISSION

Procurement and Assignment Service
1021 Hume Mansur Bldg.
Indianapolis, Indiana

C. R. Bird, M.D.,
Consultant

August 1, 1942.

MEMORANDUM

To: Members of county Procurement and Assignment Services of the Indiana State Medical Association.
Councilors of the Indiana State Medical Association.

Subject: PHYSICIANS TO MEET THE NEEDS OF THE ARMED FORCES

1. Indiana has met its quota for 1942. This could not have been achieved without the conscientious and unwavering support of the eighty-four county advisory committees and the thirteen councilors of the Indiana State Medical Association. It is noted that in some instances committees worked throughout the night until 4:00 A.M. Our everlasting thanks to you all, individually and collectively.

2. The Herculean task to be accomplished engulfed us in an avalanche of procedure. Trying times lie ahead. As the armed forces continue rapidly to expand, calling for additional medical officer personnel, as casualty lists begin to pile up, necessitating replacement of those lost in action or disabled, the civilian population will have to adjust its health and medical coverage more and more below the accustomed plane as the ever-increasing drain proceeds and we are called upon to meet the needs of the future.

The Army is engaged in a reshuffle of medical officers. By September first most physicians now assigned to administrative duties will have been replaced by non-professional officers, thus releasing medical officers to professional work. This will reduce by a probable ten per cent the originally estimated aggregate needed from Indiana to an ultimate total of 1,250 for the Army and an additional 150 for the Navy, this estimate being based on the assumption of an Army of 8,000,000, and a Navy of 1,000,000. By the end of the first six months of 1943 it is estimated that the Army and Navy will call for a minimum of an additional 150 physicians from this state. Those physicians must come from cities; few more can be spared from rural areas. When and if the Army reaches the 10,000,000 mark, Indiana must supply 360 medical officers beyond the above totals under the present tables of organization.

3. The Army Medical Officer Recruiting Board has been withdrawn from active recruiting in Indiana but remains intact to clear those applications yet remaining in file to be completed and to process new ones in future enlistments. For the remainder of 1942 only those physicians under the age of thirty-seven who are not declared essential will be expected to apply for commissions. Complete forms, together with an order for final type physical, may be had by applying to the headquarters' office of the Indiana State Medical Association, 1021 Hume Mansur Building, Indianapolis, Indiana.

4. Availability remains in a constant state of flux, making a re-classification necessary from month to month. It is urged that a survey be made by all committees, a roster prepared, a file be kept of future availables, and the same certified to headquarters' office at the earliest possible moment. In cases where the question of selection lies between one of two physicians, if no alternative exists, make available the one whose Selective Service number comes up first.

5. Total number commissioned by Recruiting Board 380
Total applications sent to Surgeon General's Office, 101, of which will be commissioned a probable 75
Total pending in file, 20, probably commissioned 15
Total commissioned by Navy (estimated) 40

Total direct to Air Corps (estimated)	20
Total in service prior to arrival of Recruiting Board	350
A few have been commissioned in United States Public Health Service (estimated)	5
Total commissioned	885
Allocated to General Hospital No. 32	35
GRAND TOTAL	920

Following is a summary by districts:

DISTRICT	*COMMISSIONED*	*DISQUALIFIED*
1st	39	22
2nd	17	8
3rd	13	6
4th	13	8
5th	19	10
6th	27	11
*7th	59	35
8th	29	12
9th	22	7
10th	35	20
11th	24	10
12th	40	24
13th	43	23

** Marion County has in service 139, plus 25 allocated to General Hospital No. 32.*

Total applications processed by the board, 777.

6. There are 196 disqualified physicians. This number includes a number not eligible for the Navy, many of whom will be acceptable for service in the Army. Every physician rejected by the Navy, therefore, should be asked to make application to the Army.

7. Disqualified physicians have an obligation to fulfill. As many as can possibly do so should volunteer for assignment wherever needed in civilian, industrial or non-military service for the duration, as their contribution toward winning the war. A few, disregarding personal welfare, have already done so. Defense industry is calling for help to replace men taken for the Army and to release physically eligibles for service. Enemy alien physicians could make a splendid gesture as a contribution to the country which has protected them by likewise volunteering for assignment to duty where their services are urgently needed.

8. The Medical Officer Recruiting Board of Indiana obtained more medical officers for the Army in a shorter space of time than any other state recruiting board. We do not congratulate ourselves on performing a duty. We are proud that we did not have to be blasted into action, and that this state is not one of the eight states owing 16,000 of the 20,000 physicians the Army must have by January 1, 1943.

UNDER THE CAPITOL DOME

STATE HEALTH BOARD CHANGES

Shifts in administrative positions in the Indiana State Board of Health have been announced by Dr. John W. Ferree, secretary of the board. Frank S. Stafford, of Indianapolis, was named director of the Division of Health Education, and Joseph L. Quinn, Jr., was appointed acting director of the Division of Environmental Sanitation. Mr. Quinn succeeds B. A. Poole as head of the Environmental Sanitation Division. Mr. Poole was given a leave of absence from the health board for the duration of the present emergency and has begun active duty as a captain in the Sanitary Corps of the United States Army.

Mr. Stafford has served as assistant director of the Health Education Division since 1936. Dr. Thurman B. Rice, formerly director of the division, was named health education consultant and will continue to serve as editor of the widely-known *Monthly Bulletin*, a publication which has been issued continuously by the Indiana State Board of Health since 1899.

Mr. Poole, now Captain Poole, recently received the George W. Fuller Engineering Award for outstanding work in Indiana in the field of engineering. The award was given at Chicago at a meeting of the American Water Works Association. In 1940 he was president of the Central States Sewage Association, and in 1941 he was chairman of the Conference of State Sanitary Engineers. In 1936 he was chairman of the Indiana section of the American Water Works Association.

Dr. Ferree also announced the resignation of Miss Eva MacDougall as director of the Division of Public Health Nursing. She had been on leave of absence for a year, and Miss Ethel R. Jacobs had been serving as acting director. Dr. Ferree said that Miss Jacobs will continue in that post until the vacancy is filled.

AUTOMOTIVE ACCIDENTS

About one in every one hundred motorists involved in traffic accidents in Indianapolis has some physical handicap. Of 7,700 drivers figuring in accidents during the first six months of this year, the Indianapolis Chamber of Commerce Safety Council found that eighty-two had impaired hearing or vision, or disabled limbs. A far larger percentage —one driver in every twenty who had a mishap— was intoxicated.

The bulk of traffic accidents in Indianapolis, the Safety Council concludes, apparently is caused by physically sound, sober drivers, and their vehicles usually are in good shape. Less than two per cent of the automobiles involved in crashes during this six-months' period were mechanically imperfect. One-half of those that were defective had inadequate brakes.

A series of disastrous accidents in a one-week

period caused the Safety Council to make a brief study of the physical condition of drivers involved in accidents. The worst of these crashes was a car driven by an alleged epileptic and chronic drunkard who ran over and killed two women and a small child at the city's busiest intersection—Meridian and Washington streets. Several days later a car driven by a one-legged motorist, who was alleged to have been intoxicated at the time, jumped a curb and injured a woman pedestrian. The following night a truck without brakes ran down and injured fatally a seventy-six-year-old retired physician whose services were sorely needed by the community.

An aggressive enforcement program, pushed by the Safety Council's enforcement committee, to increase arrests and penalties of traffic offenders appears to be bringing some results. The enforcement committee is headed by Dr. R. N. Harger, of the Indiana University School of Medicine, and includes in its membership Dr. Murray N. Hadley, Indianapolis physician and surgeon, representing the Indiana State Medical Association.

In some lively sessions with city officials, police heads, prosecutors and traffic court judges, the committee has sought to bring about immediate, effective co-operation among all law enforcement officials to assure prompt, adequate dealing with traffic offenders.

A year ago, before this committee began operation, every other motorist haled into the city's traffic courts walked out free without a penalty. Now, 90 per cent of all those arrested pay a fine. Traffic arrests have increased in the city during the same period from an average of 1,500 monthly to a top figure of 4,200 in June of this year.

The Safety Council attributes to this increased enforcement pressure the steady decline in accidents, particularly those resulting in non-fatal injuries. All accidents and non-fatal accidents have decreased approximately 30 per cent in a year's time.

Paradoxically, however, traffic deaths have increased in this same period. Most traffic fatalities in Indianapolis occur among pedestrians. Between sixty and eighty are injured every month, and one in twelve succumbs. The number of pedestrians injured dropped 12 per cent in the first six months of this year, as compared with the last half of 1941. An unusual trend in the ages of the victims is reflected by the Safety Council's study of accident statistics. Formerly, pedestrians forty-five years of age and older accounted for the majority of auto-pedestrian accidents. This year the trend has shifted to younger age-groups.

Comparing the last six months of 1941 with the first six months of 1942, accidents involving pedestrians sixty-five years of age and older dropped from sixty-nine to fifty, and in the forty-five-to-sixty-four age-group from 114 to 69—a drop of 40 per cent.

Accidents to school-child pedestrians, between the ages of five and fourteen, and to young adults (from twenty-five to forty-four years) decreased only slightly, and now these age-groups account for the highest tolls of pedestrians.

Pedestrian accidents involving small children, up to four years of age, increased in the 1942 period from the last half of 1941 by a small margin—from thirty-eight accidents to forty-five.

Habits of pedestrians are becoming worse in Indianapolis, the Safety Council believes. Accidents in which the pedestrian apparently was at fault increased slightly in the first six months of this year over the 1942 period. Four out of every ten pedestrians injured were crossing a street between intersections. Another 10 per cent were walking against a "red" light. Virtually all of the other 50 per cent, however, were proceeding legally—either crossing in the cross-walk of an intersection not protected by an automatic traffic signal, or walking with the "green" light.

Since pedestrian accidents have the highest mortality rate in Indianapolis traffic, the Safety Council has planned a concentrated program, covering engineering, education and enforcement, to attack this toll. The first step is the installation of walk-wait pedestrian lights at the city's two principal downtown intersections, which is expected to be equally valuable as an educational factor and in providing further protection for the tremendous number of persons who cross these corners on foot daily. These pedestrian lights, designed by the city traffic engineer and approved by the Safety Council's Engineering Advisory Committee, are being held up by priorities regulations, and the Safety Council has petitioned the War Production Board for permission to make the installations. Meanwhile, the Safety Council's enforcement committee, with the assistance of a representative of the Indianapolis Bar Association, who serves on the committee, is comparing the city's pedestrian ordinance with those in effect in other cities. Revisions are planned to put "teeth" in the local statute.

When the walk-wait light project and ordinance study are complete, the Safety Council plans a program of education to acquaint citizens with the improved law, which will specifically ban jay-walking and crossing against "red" lights. Then the police department will be asked to make arrests for these violations, and the traffic courts will be asked to convict and penalize the offenders.

The Safety Council expects to include in the revamped pedestrian ordinance provisions that also will clarify responsibilities of motorists to pedestrians, defining the circumstances under which a driver must yield right-of-way to a pedestrian, and equal enforcement of these regulations will be sought.

Enforcement of the law on pedestrians has cut pedestrian accidents and deaths in Kansas City, Washington, D. C., Detroit, and a score of other American cities. Other less drastic methods have been tried by many cities to reduce pedestrian accidents, but none except enforcement has been found to have any lasting effect.

WHAT WENT ON DURING WORLD WAR I

Items from The Journal of September, 1917

Three scientific articles appear in this issue of THE JOURNAL; Dr. Frank A. Brayton, Indianapolis, discussed "Venarsen in the Treatment of Syphilis;" Orvall Smiley, Indianapolis, wrote on "Nerve Blocking for the Relief of Genital and Anal Pruritus" and H. K. Langdon, also of Indianapolis, presented "The Bacteriology of Mastoiditis."

* * *

This number was the Convention issue, the meeting to be held in Evansville. Dr. John H. Oliver, Indianapolis, headed the official family.

* * *

The report of the treasurer showed a balance of $2,377.47 in the general fund, the Report of the Committee on Medical Defense showed a balance of $7,121.64, and the Report of Committee on Medical Administration showed a balance of $391.94.

* * *

Editorial comment embraced Infantile Paralysis, the Physician in Military Service, a discussion of a proposal to lower the standards for the practice of medicine, and one on the subject of medical students and internes in military service.

* * *

It was predicted that the attendance at the Evansville meeting would be considerably lowered due to so many members being in the armed services.

* * *

Again it was urged that there be established a National Health Service.

* * *

There were to be fewer guest speakers at the Evansville meeting than usual, because of war conditions, and it also had been decided to cancel the usual commercial exhibits.

* * *

Applications for enlistment in the Medical Reserve Corps were on the increase, as reported by Major John W. Sluss.

* * *

Some "national leaders" came in for a raking broadcast at the hands of Editor Bulson.

* * *

It had been proposed to amend the Constitution and By-Laws, making all ex-presidents life members of the House of Delegates. There were 21 living ex-presidents of the Association at this time.

* * *

The editor urged more care in the examination of draftees, declaring that too many of these were being rejected at the Army camps.

Complaint was being registered by many physicians desiring to enter the armed services to the effect that they were unable to cancel leases for their office space. A movement was on foot to take care of the matter.

* * *

The editor boldly declared that there were slackers in the medical profession and proposed to see what he could do toward smoking them out.

* * *

Certain publishers of religious papers were taken to task because of the blatant advertising of patent nostrums in their columns.

* * *

Fourteen seniors in the Indiana University School of Medicine had been included in the draft lists. It also was announced that the freshman class would be much smaller than usual because of war conditions.

* * *

The Princeton Sanatorium was to become a branch of the Methodist Hospital, of Indianapolis.

* * *

Major E. D. Clark had announced the complete personnel of Base Hospital No. 32. The unit was mobilized at Fort Benjamin Harrison on September first.

* * *

A new wing of the Mercy Hospital, Gary, was under construction.

* * *

Dr. Joseph D. Heitger, Bedford, had been seriously ill with typhoid fever but was well on the way to recovery.

* * *

Sixty cases of trachoma had been reported in Taylorsville, a town of some seven hundred inhabitants.

* * *

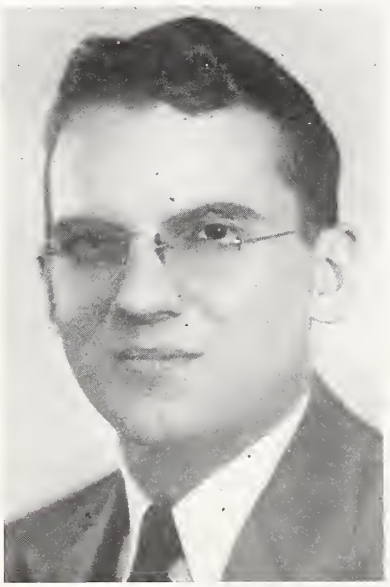
Fifty thousand dollars had been raised for a new hospital at Bloomington.

* * *

An examining unit of the Army Aviation Corps had been established in Indianapolis, under direction of Dr. John F. Barnhill; Drs. F. A. Morrison, Frank Hutchins, D. W. Layman and Carl H. McCaskey were the other physicians appointed.

The Indiana State Board of Health in cooperation with the Indiana University School of Medicine will again offer postgraduate courses in obstetrics during the coming year.

Deaths



Lieutenant John Francis Kerr, Jr., M.D.

Lieutenant John Francis Kerr, Jr., M.D., of Indianapolis, who was serving as receiving and dispensing officer at the Jefferson Barracks dispensary at St. Louis, Missouri, died at El Paso, Texas, on August eighteenth from injuries suffered in an accident when he fell beneath a moving train.

He was thirty-five years of age and had practiced medicine in Indianapolis for ten years prior to his induction into the armed forces. He was a graduate of the Indiana University School of Medicine in 1930 and was particularly interested in proctology.

Dr. Kerr is the first Indiana physician reported to us as having sacrificed his life for his country in World War II.

He was a member of the Marion County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Albert A. Thomas, M.D., of Indianapolis, died at his home on July eighteenth, at the age of fifty-nine He was a graduate of the Johns Hopkins University School of Medicine, at Baltimore, in 1908. He was a captain in the Medical Corps at New York during World War I. Doctor Thomas was especially interested in industrial surgery. He was a member of the Marion County Medical Society, the Indiana State Medical Association and was a Fellow of the American Medical Association.

Orlando B. Pettijohn, M.D., of Noblesville, died july twenty-fifth, aged ninety-two. He graduated from the Indiana Medical College, Indianapolis, in 1874.

* * *

Alva A. Shanahan, M.D., of Marion, died July twentieth, at the age of seventy-three. He was a graduate of the Curtis Physio-Medical Institute, at Marion, in 1894.

* * *

Charles E. Ragan, M.D., of Terre Haute, died on July twenty-first, at the age of sixty-one. He was a graduate of the Indiana Medical College, School of Medicine of Purdue University, in 1906.

* * *

Edward H. Cowan, M.D., formerly of Crawfordsville, died at the home of his daughter at Dallas, Texas, on August first. He was ninety-five years of age. He graduated from the Miami Medical College, Cincinnati, in 1873.

* * *

John Crede Miller, M.D., of Anderson, died July twenty-fourth, at the age of thirty-eight. He was a graduate of the Indiana University School of Medicine, Bloomington, in 1930. He was interested in Industrial Surgery. Doctor Miller was a member of the Madison County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association.

* * *

Benjamin A. Brown, M.D., of Indianapolis, was injured fatally when struck by a truck July twenty-fourth. He was seventy-six years of age. Doctor Brown was a graduate of the Medical College of Indiana, at Indianapolis, in 1888. He served as a captain in the Army Medical Corps during World War I. He was a member of the Marion County Medical Society, an honorary member of the Indiana State Medical Association and a member of the American Medical Association.



Defend
America
with
Defense Bonds

News Notes

Dr. M. Joseph Barry, of Indianapolis, was elected president of the Indianapolis Board of Health at its annual reorganization meeting.

Dr. A. W. Records, of Franklin, has been appointed a member of the city board of health, to fill the unexpired term of Dr. Florence Blackford.

Dr. John H. Nill and James L. Wyatt, Jr., both of Fort Wayne, have been appointed interns at the St. Joseph's Hospital, Fort Wayne.

Dr. Nettie B. Powell, of Marion, has consented to again take charge of the baby clinics in Marion, the war emergency having caused a shortage of doctors.

Dr. H. H. Alexander, of Princeton, has been appointed physician for the Gibson County jail, to succeed Dr. John K. Folck, who resigned to enter the Army service.

Dr. Raleigh S. Miller, who recently completed his interneship at St. Vincent's Hospital in Indianapolis, has become associated with Dr. Byron Nixon of Farmland.

Dr. D. D. Jones, of Berne, has been appointed Adams County health officer, to fill the unexpired term of Dr. Palmer Eicher, of Decatur, now a captain in the United States Medical Corps.

Dr. George B. Morris, of Bluffton, who is now city health officer, has also been appointed coroner of Wells County to succeed Dr. William Gitlin, who is now with the armed forces.

At a meeting of the American College of Chest Physicians, held at Atlantic City, June 6-8, 1942, Dr. Jerome V. Pace, of New Albany, was elected a Governor. Dr. James H. Stygall, of Indianapolis, also was elected Regent of the College.

Dr. Charles Hope, of Lafayette, one of Indiana's pioneer physicians, observed his eighty-fifth birthday on July twenty-sixth. Dr. Hope has been in practice fifty-nine years, and is an honorary member of the Indiana State Medical Association.

Dr. Hallie Isabel Morgan has opened an office in Danville in the rooms formerly occupied by Dr. Byron Kilgore, who is now in the service.

Dr. Paul W. Sparks, of Winchester, has been appointed a member of the city board of health, to succeed Dr. V. K. Stoelting, who is now with the armed forces.

Dr. Robert C. Wybourn, of Ossian, has been appointed health officer of Wells County, to succeed Dr. Max Gitlin, who is now with the Medical Corps of the United States Army.

Dr. Ruth M. Hoetzer and Lieutenant Vernon K. Pancost, both of Fort Wayne, were married July ninth, in St. Paul's Lutheran Church, Fort Wayne. Lieutenant Pancost is serving in the Medical Division at Baer Field.

Dr. J. F. Gillespie, of Greencastle, has been appointed secretary of the Putnam County Board of Health, to serve the unexpired term of Dr. William Tipton, who is now in the Medical Corps of the United States Army.

Dr. J. S. Robison, of Winchester, has been appointed county physician of Randolph County, to fill the unexpired term of Dr. V. K. Stoelting, of Winchester, who is now in the Medical Corps of the United States Army.

A group of the nation's leading research men met at the Indiana State Board of Health Building on July seventeenth to discuss the progress made in the massive arseno treatment for syphilis. Among those attending the round table discussion were L. Y. Mazzini, of the Indiana State Board of Health, Indianapolis, and Dr. Reuben L. Kahn, University of Michigan, Ann Arbor, whose tests for syphilis are widely used.

Dr. Gilbert T. Smith, assistant superintendent of the Logansport State Hospital twenty-five years ago, has again accepted a position on the medical staff of that institution. Dr. Smith has served as assistant superintendent at the Huntington (West Virginia) State Hospital and the Mansfield State Hospital in Connecticut, and was a ship surgeon until April 23, 1942, when his ship was torpedoed off the coast of Cape Hatteras.

Dr. Maurice R. Lohman, of Fort Wayne, has been appointed police surgeon, to succeed Dr. Arnold H. Duemling, who is now with the Medical Corps of the Navy.

Dr. J. E. Yarling, of Peru, has been appointed county physician of Miami County, to succeed Dr. R. E. Barnett, of Bunker Hill, who is now in the Medical Corps of the United States Army.

Dr. J. R. Ranes, of Mt. Vernon, has been appointed jail and infirmary physician to fill the unexpired term of Dr. Frank W. Oliphant, who is now with the armed forces.

Dr. Arthur B. Leiter, of Columbia City, has been appointed county health officer of Whitley County, to succeed Dr. Otto P. Lehmberg, now in the United States Army. Dr. E. A. Hershey, of Churubusco, succeeds Dr. Leiter as coroner.

Dr. Albert Goodrich, who graduated from the Indiana University School of Medicine in 1941, has located at Bloomington, Indiana, and has opened a practice in the office formerly occupied by Dr. Neal Baxter, who is now with the United States Navy.

Dr. J. M. Kercheval, Wolcottville, has located in Warsaw and is occupying the office of Dr. G. H. Schlemmer, who is serving in the armed forces. Dr. Kercheval served two years' residency at the Methodist Hospital in Indianapolis and one year at the Ford Hospital in Detroit, Michigan.

INDIANA STATE CONFERENCE ON SOCIAL WORK

The fifty-second annual meeting of the Indiana State Conference on Social Work will be held in Indianapolis November 4 to 6, with headquarters at the Claypool and Lincoln hotels. William A. Hacker, assistant superintendent in charge of the Social Service Department of the Indianapolis Public Schools and a member of the Indiana State Board of Public Welfare, is president of the social work organization in Indiana, first state in the country to hold regular annual state-wide conferences on social work.

The first day and a half of the three-day meeting will be devoted to the Laura Greely Study Courses, a series of eight-hour institutes conducted annually for practicing social workers. Refresher courses on such subjects as case work, recording, family budgeting, child welfare, community organization, group work, medical care and mental hygiene will be led by outstanding authorities in the various fields.

Other nationally known social welfare leaders will speak November 5 and 6 at general sessions of the conference.

Dr. C. E. Canaday, of New Castle, has been appointed physician for both the jail and infirmary of Henry County.

ANNUAL MEETING OF AERO MEDICAL ASSOCIATION

The fourteenth annual meeting of the Aero Medical Association of the United States will be held at the Claypool Hotel September 4 and 5. This organization has a membership from flight surgeons of the United States Army, flight surgeons of the U. S. Navy, authorized medical examiners of the Civil Aeronautics Administration, flight surgeons of Canada, Mexico and a number of the South American republics. All members are active in Aviation Medicine. Karl T. Brown, M.D., of Muncie, Indiana, is vice-president and acting president during the absence of Captain John R. Poppen, M.C., U. S. Navy, who is on active duty; W. Randolph Lovelace II, formerly of the Mayo Clinic, late Major M.C. of Wright Field, Dayton, Ohio, is president-elect and will be installed at this meeting; D. S. Brachman, M.D., of Detroit, is secretary-treasurer. Wilbur F. Smith, M.D., of Indianapolis, is chairman of all committees making arrangements for this meeting. Flight surgeons of the Army and Navy will be ordered to attend this meeting, along with authorized civil aeronautics examiners from every state in the union and countries of the Western Hemisphere. The committee is expecting a very large attendance because of the increasing interest in Aviation Medicine.

SURGEONS' CONGRESS TO BE HELD IN CLEVELAND

The 1942 Clinical Congress of the American College of Surgeons, originally scheduled for October at the Stevens Hotel, Chicago, will be held in Cleveland, with headquarters at the Cleveland Public Auditorium, November 17-20, 1942. The Stevens Hotel has been taken over by the United States Army Air Corps.

The program of panel discussions, clinical conferences, scientific sessions, hospital meetings, and medical motion picture exhibitions at headquarters, and operative clinics and demonstrations in the local hospitals and the Western Reserve University School of Medicine, has been centered around the many medical and surgical problems arising out of the prosecution of an all-out effort to win the war, emphasizing the needs of the rapidly expanding medical services of the Army and the Navy, and consideration of special problems related to the increasing activities for civilian defense.

There will be a joint General Assembly on Tuesday morning, November 17, with addresses by the surgeons general of the Army, the Navy, and the United States Public Health Service. The Forum on Fundamental Surgical Problems inaugurated at the 1941 Clinical Congress will be repeated on three successive mornings.

Dr. Irvin Abell, of Louisville, is the President-elect.

Military News

Dr. Frank W. Oliphant, of Mount Vernon, is now located at Fort Hayes, Columbus, Ohio.

Dr. R. E. Barnett, of Peru, is now in service with the Air Corps at Randolph Field, Texas.

Dr. C. O. McCormick, Jr., of Indianapolis, is now serving in Great Britain.

Dr. George Wagoner, of Burrows, is serving in the United States Air Corps at Boca Raton, Florida.

Dr. Milton Olmstead, of Petersburg, is stationed at Camp Carson, Colorado.

Dr. O. T. Kidder, of Fort Wayne, is located at Fort Jackson, South Carolina. He is commissioned a captain.

Dr. E. V. Herendeen, of Rochester, has reported for duty at Fort Myers, Florida. Dr. Herendeen is a captain.

Dr. R. S. McElroy, of Princeton, has been commissioned a captain and is stationed at Carlisle Barracks, Pennsylvania.

Dr. Ralph E. Elliott, of Gary, captain in the Medical Corps, is now stationed at the Twelfth General Hospital, Fort Custer, Michigan.

Dr. Perry W. Bailey, of Fort Wayne, has been commissioned a captain in the Army Medical Corps and is stationed at Camp Young, Indio, California.

Dr. Jack McKittrick, of Washington, is now located at Great Falls, Montana, and is in the Medical Department of the Army Air Corps.

Dr. W. M. Barton, of Centerville, has received a commission as captain in the United States Army. He is now stationed at Camp Gruber, Oklahoma.

Dr. Dale Donald Dickson, of Letts, has been commissioned a first lieutenant in the Army and is now stationed at the School of Aviation Medicine, Randolph Field, San Antonio, Texas.

Dr. Maurice Fox, of Bicknell, has been commissioned a captain and is stationed at the Evacuation Hospital, San Luis Obispo, California.

Dr. S. M. Malstaff, of South Bend, has been commissioned a captain in the Medical Corps and is stationed at Camp Grant, Illinois.

Dr. Vance Chattin, of Washington, is now stationed at Robbins Field, Georgia. He is a first lieutenant in the United States Army Air Corps.

Dr. Harry Kahan, of Gary, has been commissioned a captain, and is stationed at the new Army hospital at Camp Atterbury, Columbus, Indiana.

Dr. J. P. Showalter, of Waterloo, is now on duty with the Third Armored Division at Camp Polk, Louisiana. Dr. Showalter is a first lieutenant.

Dr. W. Lawrence Daves, of Evansville, is now an instructor in the Army Air Force at Robbins Field, Macon, Georgia.

Dr. John C. Glackman, Jr., of Rockport, has been commissioned a second lieutenant in the Medical Corps. He is stationed at Camp Young, Indio, California.

Dr. Charles E. Stouder, of Gosport, reported for active duty at Fort Custer, Michigan, on July sixteenth. Dr. Stouder has been commissioned a captain.

Dr. Albert M. DeArmond, of Indianapolis, has been promoted to the rank of lieutenant colonel in the Army Medical Corps. He is now on duty at Carlisle Barracks, Pennsylvania.

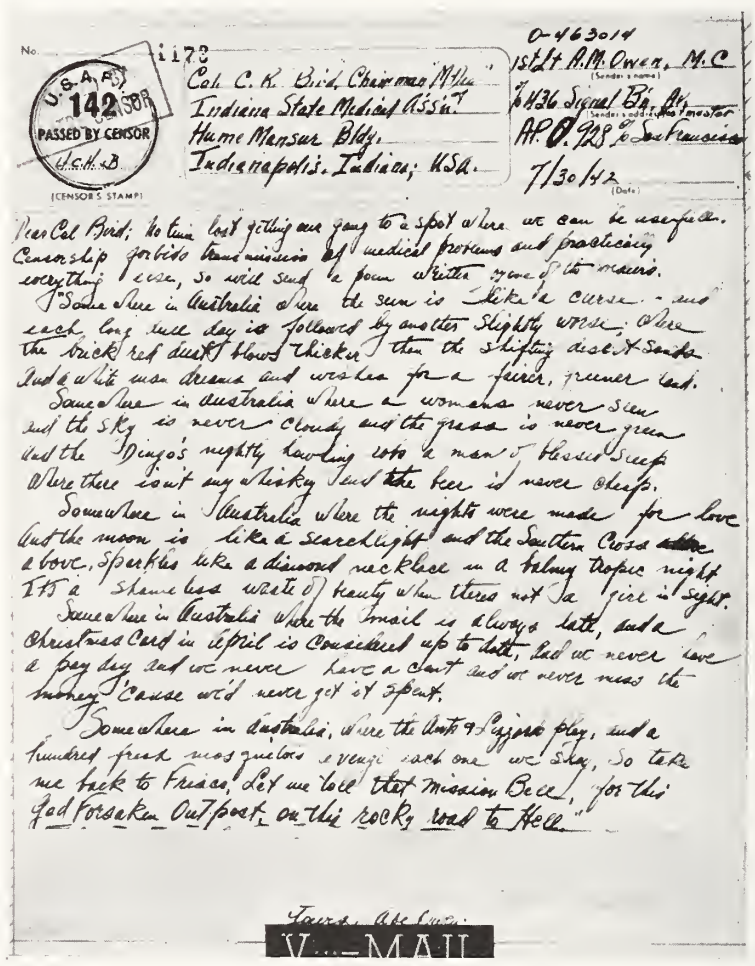
Dr. Werner W. Duemling, of Fort Wayne, has been commissioned a lieutenant commander in the Navy. He is stationed at the United States Naval Hospital at San Diego, California.

Dr. W. W. Houser, of Monon, has been appointed regimental surgeon of the Antiaircraft Division of the Sixty-eighth Coast Artillery, located at Camp Haan, California. He has started a thirteen-week intensive course in Army surgery.

V... — Mail

Letters are received from physicians in the service at frequent intervals. Below is a reproduction of a V-Mail letter received from Dr. Abraham M. Owen, who is from Attica and is now stationed in Australia. He reported for duty with the armed forces on May 8, 1942. This letter is a reproduction of the electrically processed mail now in universal use to save space in transportation. Letters are photographed abroad and the film is flown to this country where the letters are reproduced and mailed to their destination. The V-Mail service is now about as speedy as ordinary air mail.

"Dear Col. Bird: No time lost getting our gang to a spot where we can be useful. Censorship forbids transmission of medical problems and practically everything else, so will send a poem written by one of the soldiers:



'Somewhere in Australia where the sun is like a curse and each long dull day is followed by another slightly worse; where the brick red dust blows thicker than the shifting desert sands and a white man dreams and wishes for a fairer, greener land.

'Somewhere in Australia where a woman's never seen and the sky is never cloudy and the grass is never green. And the Dingo's nightly howling robs a man of blessed sleep. Where there isn't any whisky and the beer is never cheap.

'Somewhere in Australia where the nights were made for love and the moon is like a searchlight and the Southern Cross above, Sparkles like a diamond necklace in a balmy tropic night. It's a shameless waste of beauty when there's not a girl in sight.

'Somewhere in Australia where the mail is always late, and a Christmas card in April is considered up to date, and we never have a payday and we never have a cent and we never miss the money 'cause we'd never get it spent.

'Somewhere in Australia where the ants and lizzards play, and a hundred fresh mosquitoes avenge each one we slay, so take me back to Frisco, let me toll that Mission Bell for this God Forsaken Outpost on this rocky road to Hell.'"

...V—

Dr. Voris McFall, of Anderson, is now stationed at Madison, Wisconsin. Doctor McFall is a first lieutenant.

Dr. John H. Combs, of Evansville, has been called to service with the Medical Corps at Hot Springs, Arkansas.

Dr. Marion Kirtley, of Crawfordsville, is now stationed at Camp Gorden, Georgia. Dr. Kirtley is a captain in the Army Medical Corps.

Dr. Irvin Caplin, of Indianapolis, is stationed at Camp Young, Indio, California. He is a lieutenant in the Medical Corps of the United States Army.

Dr. W. V. Morris, of Monticello, has received a commission as first lieutenant in the Army. Dr. Morris is stationed at Camp Shelby, Mississippi.

Dr. P. M. Davis, of New Albany, has been commissioned a major in the Medical Corps of the Army. He will be stationed at the Panama Canal Zone.

Dr. R. A. Gardner, of Michigan City, is stationed at Atlanta, Georgia. He has been commissioned a first lieutenant in the Army Air Medical Corps.

Dr. Elizabeth Garber, formerly of Dunkirk, has been assigned to the Women's Army Auxiliary Corps. She is serving in a civilian capacity under contract to the War Department.

Dr. Samuel Caplin, of Indianapolis, is now serving as a lieutenant in the Medical Corps of the United States Army. He is stationed at Camp Carson, Colorado Springs, Colorado.

Dr. R. O. Hippensteel, of Fremont, is now in service with the United States Army Air Corps Medical Unit. Dr. Hippensteel was commissioned as a first lieutenant. He is now stationed at the Army Air School at Nashville, Tennessee.

Dr. Leonard Long and Dr. Thomas Dorrance were honored at a dinner on July sixth. Dr. Dorrance has been commissioned a first lieutenant in the United States Army and is stationed at Camp Grant, at Rockford, Illinois. Dr. Long has been commissioned a captain and is now located at Camp Knox, Kentucky.

INDIANA PHYSICIANS IN MILITARY SERVICE

(This supplementary list covers the physicians who have entered the armed forces since the original list was published in the July, 1942, issue of THE JOURNAL.—Editor's Note.)

Name and Home Address	*Station*
First Lt. Charles F. Abell, Marion	Camp Shelby, Miss.
Second Lt. Geo. H. Ahlering, Indianapolis	
First Lt. Harry Aldrich, Indianapolis	Nashville, Tenn.
First Lt. James M. Alexander, Argos	Fort Thomas, Ky.
Fred K. Allen, Fredericksburg	
Capt. Lionel H. Allen, Bedford	Fort Harrison, Ind.
Jesse C. Ambrose, Noblesville	Great Lakes, Ill.
First Lt. Charles P. Anderson, Gary	Fort Harrison, Ind.
Lt. Comdr. Richard H. Appel, Indianapolis	Lake Bluff, Ill.
Capt. Frederick M. Applegate, Corydon	
Capt. Russell L. Arbuckle, Indianapolis	Springfield, Mo.
Major John L. Arbogast, Lafayette	Washington, D. C.
First Lt. Aaron Arnold, Indianapolis	Camp Carson, Colo.
First Lt. Ralph D. Arnold, Ligonier	
H. H. Ash, Lafayette	
Capt. Bellfield Atcheson, Gary	
First Lt. Robert J. Axtell, Indianapolis	Carlisle Barracks, Pa.
First Lt. Arnold J. Bachmann, Cambridge City	
First Lt. Earl W. Bailey, Logansport	Fort Riley, Kan.
First Lt. Edwin Bailey, Linton	
L. S. Bailey, Zionsville	Norfolk, Va.
Major Paul Bailey, Fort Wayne	
Capt. Perry W. Bailey, Fort Wayne	Camp Young, Indio, Calif.
Capt. Wm. O. Baldridge, Terre Haute	Camp Stoneman, Pittsburgh, Cal.
Capt. Wm. W. Ballenger, Richmond	Springfield, Mo.
First Lt. George Balsbaugh, N. Manchester	Will Rogers Field, Oklahoma City, Okla.
Frank B. Bard, Crothersville	Camp Grant, Ill.
First Lt. Alex E. Bardowski, Gary	
First Lt. Ernest R. Barnett, Indianapolis	Camp Grant, Ill.
Ralph Barnett, Peru	
Capt. Elmer A. Barron, LaPorte	Carlisle Barracks, Pa.
Capt. James L. Bartle, Knightstown	
Capt. Russell L. Baskett, Jonesboro	Camp San Luis Obispo, Cal.
Lt. Edward T. Baumgart, Indianapolis	McClelland Field, Calif.
James W. Baxter, New Albany	Chico, Calif.
Neal Baxter, Bloomington	Pensacola, Fla.
Samuel M. Baxter, New Albany	
Capt. Samuel E. Bechtold, South Bend	
Capt. Luther F. Beetem, Madison	Governor's Island, N. Y.
Major Karl M. Beierlein, Fort Wayne	Hot Springs, Ark.
Capt. Carl H. Bendler, Gary	Camp Grant, Ill.
First Lt. Owen F. Benz, Whiting	
First Lt. John B. Berkebile, Peru	Lincoln, Nebr.
First Lt. Joseph Bernstein, Indianapolis	
Capt. Frank L. Bigsby, Evansville	
First Lt. John P. Birdzell, Crown Point	Bowman Field, Ky.
Capt. J. G. Bledsoe, New Castle	Oklahoma City, Okla.
Major Robert S. Bolin, Elkhart	Camp Atterbury, Ind.
First Lt. R. Lee Boling, Indianapolis	Scott Field, Ill.
Capt. Paul Boren, Poseyville	
First Lt. Nelson Boyd, Frenchandville	
First Lt. Charles M. Bowman, Albion	Camp Grant, Ill.
First Lt. Edward B. Boyer, Indianapolis	Chicago, Ill.
First Lt. Joe D. Boughman, Kokomo	Carlisle Barracks, Pa.
First Lt. John M. Bretz, Indianapolis	Carlisle Barracks, Pa.
First Lt. Arthur Brody, East Chicago	Pendleton, Ore.
Capt. Archie E. Brown, Indianapolis	Baer Field, Fort Wayne
First Lt. Dewitt W. Brown, New Augusta	Carlisle Barracks, Pa.
Capt. James C. Brown, Valparaiso	
First Lt. Kenneth Brown, New Albany	
Marcel S. Brown, Spencer	
Wendell E. Brown, Indianapolis	Norfolk, Va.
First Lt. Wm. M. Browning, Indianapolis	Carlisle Barracks, Pa.
T. J. Bruegge, Kokomo	Camp Huber, Texas
Lt. Wallace D. Buchanan, Bremen	Norfolk, Va.
Capt. F. W. Buechner, South Bend	
Capt. H. C. Buhrmester, Lafayette	Sioux Falls, S. D.

First Lt. Clarence E. Bunge, Logansport — Barksdale Field, La.
Capt. Boyd A. Burkhardt, Tipton — Springfield, Mo.
Capt. Arthur Burnett, New Castle — Fort Harrison, Ind.
First Lt. Robert M. Butterfield, Muncie — Fort Bliss, Texas
Capt. Richard H. Callahan, East Chicago
Major R. R. Calvert, Lafayette — Selfridge Field, Mich.
First Lt. Irvin Caplin, Indianapolis — Camp Young, Calif.
First Lt. Samuel Caplin — Camp Carson, Col.
First Lt. J. F. Carl, Hammond — Camp Livingston, La.
First Lt. Norman R. Carlson, Michigan City
Capt. John C. Carney, Monticello — Fort Harrison, Ind.
John C. Carroll, Decatur — Carlisle Barracks, Pa.
Capt. Wayne Carson, Indianapolis — MacDill Field, Fla.
Capt. Jean V. Carter, Tipton
Second Lt. John P. Cates, Modoc
First Lt. Joseph D. Caton, South Bend
First Lt. John L. Cassiday, Evansville
Wm. B. Challman, Mt. Vernon
Capt. Alan Chambers, Fort Wayne — Camp Polk, La.
Capt. Leroy B. Chambers, Union City — Minter Field, Calif.
Vance J. Chattin, Washington
First Lt. Benjamin Chavinson, Decatur — Camp Grant, Ill.
Capt. Charles D. Clark, South Bend
First Lt. Fred O. Clark, Syracuse — Fort Riley, Kan.
Lt. Comdr. A. F. Clements, Evansville — Annapolis, Md.
Major Jos. H. Clevenger, Muncie — El Paso, Texas
Capt. W. D. Close, Indianapolis — Camp Robinson, Ark.
First Lt. Frank H. Coble, Richmond
First Lt. William L. Cole, Evansville
First Lt. Henry G. Coleman, Odon — Camp Young, Indio, Calif.
Capt. Donald L. Colglazier, Salem
First Lt. George D. Colip, South Bend
Nelson B. Combs, Mulberry
First Lt. Stuart R. Combs, Terre Haute — Fort Hayes, Ohio
First Lt. Charles W. Comer, Mooresville — March Field, Calif.
First Lt. Kenneth Comer, Mooresville — Chanute Field, Ill.
Walter Compton, Elkhart
Capt. Paul S. Connell, Plymouth — New Orleans, La.
First Lt. Glenn C. Cook, Marion — Fort Harrison, Ind.
First Lt. Matthew Cornachione, Indpls. — Baer Field, Fort Wayne
First Lt. Thomas A. Cortese, Indianapolis — Camp Atterbury, Ind.
First Lt. Edward R. Cotter, East Chicago — Atlantic City, New Jersey
Capt. Wayne T. Cox, Lafayette — Camp Shelby, Miss.
Lt. Comdr. Paul K. Cullen, Indianapolis — Great Lakes, Ill.
Capt. Wm. Daves, Evansville
Major Parvin M. Davis, New Albany
Donald I. Dean, Rushville
First Lt. Eugene DeGrazia, Valparaiso
Russell DeMotte, Bloomington
First Lt. Larkin Denton, Greentown — Columbus, Ohio
E. K. Denzer, Evansville
Capt. George L. Derhammer, Brookston — Camp Grant, Ill.
First Lt. Frederick Dettloff, Cloverdale — Fort Hayes, Ohio
First Lt. August J. Dian, Gary
First Lt. Jack Dick, Huntington — Carlisle Barracks, Pa.
D. D. Dickson, Letts
First Lt. Herbert S. Dieckman, Evansville
First Lt. Edward J. Dierolf, Gary — Camp Grant, Ill.
Capt. Paul E. Dingle, Richmond
Capt. Edward P. Drohan, Lawrenceburg
Capt. James U. Dodds, Hartford City — Fort Bliss, Texas
Capt. George R. Donahue, Lafayette — Fort Snelling, Minn.
First Lt. Robert W. Donnelly, Sullivan — Carlisle Barracks, Pa.
First Lt. Thomas O. Dorrance, Bluffton
First Lt. Ramon B. Dubois, West Point — Camp Claibourne, La.
Lt. Comdr. John C. Drake, Anderson — New River, N. C.
Lt. Comdr. Werner W. Duemling, Fort Wayne — San Diego, Calif.
Capt. Joseph C. Dusard, Bedford
First Lt. Walter A. Dycus, Evansville
First Lt. George Dyer, Terre Haute — Geiger Field, Wash.
Capt. T. A. Dykhuizen, Frankfort
Capt. Ralph C. Eades, Valparaiso — Atlanta, Ga.
Capt. Wm. F. Edwards, New Albany
Capt. Palmer Eicher, Decatur — Camp Grant, Ill.
First Lt. Hugh W. Eikenberry, Peru — Lemoor Flying Field, Calif.

Capt. Ralph A. Elliott, Gary — Fort Custer, Mich.
Capt. Lyman H. Ellis, Lebanon — Fort Hershey, Texas
Capt. Charles B. Emery, Bedford — Fort Harrison, Ind.
First Lt. Richard Emme, Harlan
First Lt. Edgar L. Engel, Evansville
First Lt. John M. Engle, Portland — Mather Field, Calif.
Russell B. Engle, Farmland.
Capt. Richard E. Estlick, Fort Wayne
First Lt. Ralph V. Everly, Indianapolis — Baer Field, Fort Wayne
Capt. Wm. J. Fagaly, Lawrenceburg
First Lt. John R. Fair, Wolflake — Carlisle Barracks, Pa.
First Lt. Joseph T. Farrell, Indianapolis — Camp Carson, Col.
First Lt. Meredith B. Flanigan, Frankton — Mather Field, Calif.
Capt. Henry J. Faul, Evansville
Capt. Calvin B. Fausset, Indianapolis — Kelly Field, Texas
First Lt. Asa H. Fender, Worthington
Major A. N. Ferguson, Ft. Wayne — Fitzsimmons Hospital, Denver, Col.
First Lt. Joseph F. Ferrara, Gary — Carlisle Barracks, Pa.
First Lt. Henry Fisher, Marion — Camp Young, Indio, Calif.
First Lt. John E. Fisher, Clarksburg — Stout Field, Indianapolis
Russell Flack, Lafayette
J. M. Fleming, Elkhart
Capt. John K. Folck, Princeton
Capt. M. S. Fox, Bicknell
Capt. Hayward W. Foy, Fort Wayne — Camp Rucker, Ala.
Capt. Robert L. Fullerton, Indianapolis — Omaha, Neb.
Capt. Wenfred J. Fuson, Greencastle
First Lt. Max Ganz, Marion — Camp Young, Indio, Calif.
First Lt. R. A. Gardner, Michigan City
First Lt. Luvern Garling, Muncie — Springfield, Mo.
Major William H. Garner, New Albany — Fort Knox, Ky.
First Lt. George E. Gates, South Bend
R. W. Gehres, Shelbyville
Capt. Roy A. Geider, Indianapolis — Fort Harrison, Ind.
Capt. John P. Gentile, New Albany — Fort Hayes, Ohio
First Lt. Chas. George, Indianapolis — Camp Carson, Col.
First Lt. Richard Gery, Lafayette — Lubbock, Texas
Major Ivan Gilbert, Terre Haute — Santa Barbara, Calif.
First Lt. Dee D. Gill, Greenfield — Baer Field, Fort Wayne
Capt. J. P. Gilliatt, Salem — Camp Swift, Texas
Capt. Charles M. Gingerick, Liberty Center
Capt. Max M. Gitlin, Bluffton
First Lt. John C. Glackman, Jr., Rockport
First Lt. Naf Gladstone, Fort Wayne
Capt. Wayne R. Glock, Fort Wayne
Harold Goldberg, East Chicago
First Lt. Adolph Goldstone, Gary
Capt. John W. Graves, Indianapolis — Fort Knox, Ky.
Leon Gray, Martinsville
Capt. James Griffith, Sheridan — Ft. Douglas, Utah
Capt. Donald Grillo, South Bend — Fort Harrison, Ind.
First Lt. William G. Grosso, East Chicago — Camp Grant, Ill.
First Lt. Carlton J. Guild, Garrett — Fort Devens, Mass.
Capt. Leo L. Grzek, Mishawaka — Camp Livingston, La.
Capt. A. F. Gregg, Connersville — Camp Crowder, Mo.
First Lt. David Hadley, Indianapolis — Camp Rucker, Ala.
Herman G. Haffner, Fort Wayne — Fort Hayes, Ohio
Capt. E. B. Haggard, Indianapolis — Hamilton Field, Calif.
Capt. Emory H. Hall, Dunkirk — Camp Gruber, Okla.
Capt. O. A. Hall, Muncie — Atlanta, Ga.
Major H. J. Halleck, Winamac — Camp Forrest, Tenn.
First Lt. George K. Hammersley, Frankfort — Fort Knox, Ky.
First Lt. Keith Hammond, Paoli
Stanley M. Hammond, Portland
First Lt. John G. Hancock, Indianapolis — Lubbock, Texas
Lt. Comdr. R. L. Hane, Fort Wayne — Great Lakes, Ill.
First Lt. Murray E. Harden, Covington — Fort Hayes, Ohio
Capt. Kile C. Hardesty, Fort Wayne
First Lt. Lester L. Hardy, Lexington — Carlisle Barracks, Pa.
Capt. Carl J. Harmon, Richmond
Capt. Casper Harstad, Rockville — Geiger Field, Wash.
Capt. Francis M. Hartz, Evansville
First Lt. A. M. Hascwinkle, Fort Wayne
Capt. Ezra Haslem, Terre Haute
First Lt. Nicholas W. Hatfield, Indpls — Camp Carson, Colo.
Capt. A. P. Hattendorf, Fort Wayne

Major Jay F. Havice, Fort Wayne — Denver, Colo.
First Lt. Marvin E. Hawes, Hartsville
First Lt. L. M. Headley, Lebanon
First Lt. Wm. P. Hedrick, Indianapolis — Carlisle Barracks, Pa.
Capt. Eugene L. Hedde, Logansport
First Lt. E. G. Heinrich, Ewing — Camp Grant, Ill.
Charles K. Hepburn, Indianapolis — March Field, Calif.
Lt. (j.g.) Robert R. Herbst, Hammond — Great Lakes, Ill.
Capt. Elbie V. Herendeen, Rochester — Fort Meyer, Fla.
First Lt. George W. Herrold, Lafayette
Major Russell Hiatt, Richmond — Fort Hayes, Ohio
First Lt. Nolan A. Hibner, Indianapolis — Carlisle Barracks, Pa.
First Lt. James M. Hicks, Huntington — Fort Sam Houston, Texas
Major Howard E. Hill, Muncie — Chicago, Ill.
Capt. Paul G. Hill, Cambridge City
Capt. Robert E. Hill, Muncie — Fort Hayes, Ohio
Capt. Marion W. Hillman, South Bend — Wellston, Ga.
First Lt. Ralph O. Hippensteele, Fremont — Nashville, Tenn.
First Lt. Richard W. Holdeman, South Bend
Lloyd J. Holladay, Lafayette
C. E. Holland, Bloomington
Lt. Comdr. P. T. Holland, Bloomington
George W. Holmes, Crown Point — Amarillo, Texas
First Lt. Peter B. Hoover, Boonville — Morrison Field, Fla.
Capt. Luther J. Hord, Shelbyville
Irwin S. Hostetter, Muncie
Capt. Wayne W. Houser, Monon — Camp Haan, Calif.
Stanley E. Hugg, Bremen
First Lt. John W. Humphreys, Darlington — McClellan Field, Calif.
First Lt. Joe E. Humphreys, Indianapolis — Carlisle Barracks, Pa.
Capt. Gayle J. Hunt, Richmond — Fort Hayes, Ohio
First Lt. Robert G. Husted, Hammond
First Lt. William H. Hutto, Kokomo — Scott Field, Ill.
Capt. Bernard Hyman, Indianapolis — New Orleans, La.
Capt. R. T. Hynes, Indianapolis — Fort Harrison, Ind.
Major Ray G. Ikins, Lafayette — Sioux Falls, S. D.
Herbert H. Inlow, Shelbyville — Fort Harrison, Ind.
Second Lt. Grant C. Johnson, Noblesville
First Lt. Charles A. Jones, Franklin — Carlisle Barracks, Pa.
W. W. Jones, Frankfort
First Lt. Herbert L. Joseph, Ligonier — Carlisle Barracks, Pa.
Harry L. Kahan, Gary
Leo Kammen, Indianapolis — Merced, Calif.
Capt. Thomas L. Keefe, Logansport — Maxwell Field, Ala.
Capt. Don E. Kelly, Indianapolis — Fort Custer, Mich.
First Lt. J. T. Kemp, Michigan City — Fort Jackson, S. C.
First Lt. Forest Kendall, Alexandria — Taft, Calif.
First Lt. Wm. Kendrick, Indianapolis — Carlisle Barracks, Pa.
First Lt. C. G. Kern, Lebanon — Harlingen, Texas
Capt. O. T. Kidder, Fort Wayne — Fort Jackson, S. C.
First Lt. Byron Kilgore, Jr., Danville — Camp Livingston, La.
Capt. John M. Kinmich, Kokomo — New Orleans, La.
Capt. Forrest E. Kirshman, Muncie — Springfield, Mo.
Capt. James J. Kistler, LaPorte
Capt. Arthur W. Kistner, Elkhart
Harry E. Kitterman, Indianapolis
First Lt. Benjamin V. Klain, Indianapolis — Atlanta, Ga.
Roscoe L. Kleindorfer, Evansville
Capt. Heinrich G. Kobrak, Gary — Camp Adair, Corvallis, Ore.
Capt. Elmer G. Koehler, Elkhart
First Lt. Leo A. Kolanko, Hammond — Camp Grant, Ill.
First Lt. Leon E. Kresler, Rensselaer — Carlisle Barracks, Pa.
First Lt. William W. Krieble, Terre Haute — Carlisle Barracks, Pa.
Capt. Clarence R. LaBier, Terre Haute
First Lt. Donald S. Ladig, Fort Wayne
Capt. C. B. Ladine, Indianapolis — Camp Robinson, Ark.
Gilbert Lapid, East Chicago
Capt. J. L. Larmore, Muncie — Fort Sam Houston, Texas
First Lt. Clarence A. Laubscher, Evansville
Capt. Joseph C. Lawrence, Evansville — Fort Jackson, S. C.
Capt. Otto F. C. Lehmberg, Columbia City
First Lt. Briscoe E. Lett, Loogootee — Fort Wright, Wash.
First Lt. Leon Levi, Indianapolis — Atlanta, Ga.
Capt. James F. Lewis, Liberty
Capt. Casimer L. Libnoch, South Bend — Fort Thomas, Ky.
First Lt. Melvin Lichtenberg, Indianapolis — Camp Carson, Colo.
First Lt. E. C. Lidikay, Indianapolis — Gulfport, Miss.
Capt. H. B. Lindsay, Washington
First Lt. John F. Ling, Indianapolis — Carlisle Barracks, Pa.
Jesse R. Logan, Evansville
Capt. Leonard Long, Bluffton
F. A. Loop, Lafayette
First Lt. Thaddeus B. Lorenty, Gary
Capt. Mark L. Loring, Valparaiso
First Lt. Jack L. Loudermilk, Indianapolis — Camp Carson, Colo.
First Lt. George N. Love, Connersville
Capt. Charles L. Luckett, Booneville — Fort Ord, Calif.
Capt. Milo O. Lundt, Elkhart — New Orleans, La.
Capt. George Macy, Columbus — Gardner Field, Calif.
Capt. Russell L. Malcolm, Richmond
First Lt. Frederick R. Malott, Converse — Camp Carson, Colo.
Capt. C. M. Malstaff, South Bend — Camp Grant, Ill.
First Lt. Max R. Mansfield, Indianapolis — Springfield, Mo.
First Lt. Howard H. Marks, Evansville
First Lt. Floyd S. Martin, Goshen — Camp Polk, La.
Capt. J. P. Marsh, Blountsville — Lincoln, Neb.
First Lt. Loren H. Martin, Indianapolis — Florida
Capt. Karl F. Mast, Fort Wayne — Sacramento, Calif.
Capt. J. M. Masters, Indianapolis — Fort Harrison, Ind.
Don M. Mattox, Terre Haute
Capt. George A. May, Madison — Fort Bragg, N.C.
Capt. Ardis F. Melloh, Indianapolis — Camp Carson, Colo.
Clarence D. Mendenhall, Indianapolis
Capt. Elwood J. Meredith, Richmond
O. L. Meyer, Portland
Capt. Carl G. Miller, Fort Wayne — Atlanta, Ga.
Malcolm E. Miller, Goshen
First Lt. Milton J. Miller, Evansville
Richard H. Miller, Fort Wayne
First Lt. Robert B. Miller, Nappanee
Robert J. Miller, Evansville
John F. Mills, New Castle — Fort Harrison, Ind.
Capt. Raymond J. Modjeski, Hammond
First Lt. Harold T. Moore, Indianapolis — McClellan Field, Calif.
First Lt. John B. Moring, Fort Wayne — Carlisle Barracks, Pa.
Lt. (j. g.) Judson B. Morris, Hammond — Great Lakes, Ill.
First Lt. Warren V. Morris, Monticello
Lt. Comdr. D. A. Morrison, Kokomo
First Lt. George Morrison, Portland — Springfield, Mo.
Capt. Mavor J. Moss, Yorktown — McChord Field, Washington
Capt. M. S. Mount, Bloomfield — Camp Young, Calif.
Charles E. Muhleman, LaPorte
Capt. Eugene C. Murphy, South Bend — Fort Hayes, Ohio
First Lt. Theodore E. McCabe, Fort Wayne — Camp Polk, La.
Capt. W. C. McConnel, Sunman
Capt. Wilbur C. McCormick, Terre Haute
First Lt. Joseph D. McDonald, Evansville
Capt. Ralph McDonald, Mishawaka
Capt. George A. McDowell, Fort Wayne — Camp Grant, Ill.
M. A. McDowell, Logansport
First Lt. Walter McDowell, Evansville
Capt. James S. McElroy, New Castle — Fort Harrison, Ind.
Capt. R. S. McElroy, Princeton
First Lt. Voris McFall, Anderson — Madison, Wis.
First Lt. James M. McIntyre, Indianapolis — Letterman Gen. Hospital, San Francisco, Calif.
First Lt. Arthur D. McKinley, Indianapolis — Pendleton, Ore.
Major Daniel H. McKinney, Lafayette — Fort Harrison, Ind.
First Lt. Jack McKittrick, Washington — Long Beach, Calif.
First Lt. R. M. McMichael, Muncie — Portsmouth, Va.
Major R. J. McQuiston, Indianapolis — Jefferson Barracks, Mo.
Capt. Elmer W. Nahrwald, Fort Wayne
Capt. Charles B. Nash, Valparaiso — Madison, Wis.
First Lt. R. A. Nason, Garrett
First Lt. Edward G. Neidballa, Bristol
First Lt. Raymond E. Nelson, South Bend — Camp Jackson, S. C.
First Lt. Richard B. Nelson, Hammond
Capt. Leonard L. Nesbit, Anderson — Fort Knox, Ky.
W. K. Newcomb, Royal Center
First Lt. Kenneth O. Neumann, Lafayette — Fort Hayes, Ohio
Capt. Rufus M. Nigh, Fairland — Fort Hayes, Ohio
First Lt. Harold Nisenbaum, Evansville
First Lt. Leo R. Nonte, Loogootee — Carlisle Barracks, Pa.

First Lt. Ernest B. Norris, Middlebury — Camp Haan, Calif.
Capt. Harold J. Norton, Columbus — Camp Young, Indio, Calif.
Capt. Harold Nugen, Auburn
First Lt. Frank W. Oliphant, Mt. Vernon — Fort Hayes
First Lt. Ottis N. Olvey, Noblesville — Camp Grant, Ill.
First Lt. Milton H. Omstead, Petersburg — Camp Carson, Colo.
First Lt. James F. Openshaw, Goodland — Selfridge Field, Mich.
Major John F. Owen, Indianapolis — Fort George Meade, Md.
James T. Oswalt, Dunkirk — Letterman Gen. Hospital, San Francisco, Calif.
Capt. Robert W. Owsley, Hartford City
First Lt. William A. Paff, Elkhart — Fort Harrison, Ind.
First Lt. Harry Pandolfo, Indianapolis — Lincoln, Neb.
First Lt. Durward W. Paris, Kokomo — Fort Harrison, Ind.
First Lt. John M. Paris, Indianapolis — Carlisle Barracks, Pa.
Carl M. Parker, Jasonville
First Lt. John F. Parker, Indianapolis — Camp Forrest, Tenn.
Capt. Rudolph F. Patton, Linton
Lt. Col. Ira F. Peak, Indianapolis — Indiana Univ. Med. Center, Indianapolis
First Lt. Edward A. Pekarek, Hammond
First Lt. Paul S. Pentecost, Richmond
Capt. Kermit F. Perrin, Fort Wayne — Camp Gruber, Okla.
Frederick G. Perry, Plymouth — New Orleans, La.
Capt. Frank W. Peyton, Lafayette
First Lt. Henry W. Pickard, Elkhart
Capt. Wm. L. Porter, College Corner, O.
First Lt. Franklin F. Premuda, E. Chicago
First Lt. Sidney Price, Marion — Fort Mason, Calif.
First Lt. Joseph B. Quigley, Indianapolis — Gardner Field, Calif.
First Lt. Harry Rabb, Indianapolis — Patterson Field, Ohio
Capt. Michael A. Rafferty, Elkhart — Fort Harrison, Ind.
First Lt. Walter F. Ramage, Fortville — Colorado Springs, Colo.
Capt. Ben B. Raney, Linton
Capt. Isidor Raphael, Evansville
Capt. Frank W. Ratcliff, Lafayette — New Orleans, La.
Capt. Donald Reed, Culver
First Lt. George L. Regan, Sellersburg
Capt. Charles A. Reid, Indianapolis — Sioux Falls, S. D.
First Lt. Jack Reiss, Indianapolis — Camp Claibourne, La.
Lt. (j.g.) Donald T. Rendel, Hammond — Seattle, Wash.
Lt. Comdr. Arthur P. Rhamy, Wabash — Norfolk, Va.
Capt. Gilbert D. Rhea, Greencastle
Lt. (j.g.) Clayton L. Rice, Logansport — Norfolk, Va.
Major James S. Rich, Evansville — Bowman Field, Ky.
Capt. James V. Richart, Terre Haute
Capt. Clifford O. Richey, Evansville
Wayne Ritter, Indianapolis — Hartford, Conn.
James R. Rohrer, Elnora — Fort Knox, Ky.
Capt. C. H. Rommel, West Lafayette
Capt. Harold E. Ropp, New Harmony — Robbins Field, Ga.
First Lt. Robert J. Rose, LaPorte — Ft. George Wright, Wash.
Capt. B. D. Rosenak, Indianapolis — Fort Harrison, Ind.
Arthur J. Roser, Arcola
Lt. (s.g.) Gerald S. Rubin, Indianapolis — Bremerton, Wash.
Carl J. Rudolph, South Bend
First Lt. D. H. Ruder, Whiting — Selfridge Field, Mich.
O. Raymond Russell, Frankton
Lt. Comdr. Byron K. Rust, Indianapolis — Long Beach, Calif.
First Lt. Joseph J. Sala, Gary — Patterson Field, Ohio
Capt. Max C. Salb, Indianapolis — Bowman Field, Ky.
First Lt. Louis F. Sandock, South Bend — Carlisle Barracks, Pa.
Capt. Harry H. Sandoz, South Bend — San Antonio, Texas
A. B. Scales, Oakland City
First Lt. Richard Schantz, Remington
First Lt. Harry Dick Schell, Rome City — Carlisle Barracks, Pa.
John P. Schersehel, Indianapolis
First Lt. G. H. Schlemmer, Warsaw
Capt. Carl J. Schneider, Indianapolis — Shreveport, La.
First Lt. Charles P. Schneider, Evansville — Fort Harrison, Ind.
First Lt. Gabriel Schuehman, Indianapolis — Carlisle Barracks, Pa.
Capt. M. G. Schulhof, Muncie — Victorville, Calif.
First Lt. George E. Scott, Frankfort — Atlanta, Ga.
H. Vaughn Scott, Fort Wayne — Washington, D. C.
Capt. David I. Schwartz, Fort Wayne
George W. Seward, North Manchester
First Lt. Kenneth L. Shaffer, Vincennes — Morrison Field, Fla.
First Lt. John P. Showalter, Waterloo
Capt. William A. Shuck, Madison — Omaha, Neb.
Major Wilbur Sicks, Indianapolis — Camp Pickett, Va.
First Lt. David B. Silbert, Shelbyville
First Lt. Norman M. Silverman, Riley — Fort Douglas, Utah
Ansil V. Simon, New Albany
Lorin Slefelmilch, Wabash — Ogden, Utah
First Lt. Byron J. Smith, Kingman — Westover Field, Minn.
Major David L. Smith, Indianapolis — Selfridge Field, Mich.
Lt. Comdr. E. Rogers Smith, Indianapolis — Bethesda, Md.
Lowell C. Smith, Lafayette
First Lt. Robert A. Smithson, Evansville — Fort Douglas, Utah
Willard C. Smullen, Rushville — Camp Shelby, Miss.
First Lt. Gerald H. Somers, Fort Wayne — Camp Polk, La.
Capt. Wendell L. Spalding, Mishawaka — Camp Bowie, Texas
Major A. L. Sparks, Indianapolis — Fort Harrison, Ind.
Benjamin A. Speheger, Bedford
First Lt. Robert D. Spindler, New Castle — Stockton, Calif.
Capt. Walter R. Springstun, Evansville
Capt. Robert A. Staff, Rockville — Patterson Field, Ohio
First Lt. William Stafford, Plainfield
Capt. Lucian Stamper, Richmond
First Lt. Dick J. Steele, Greencastle — Gunter Field, Ala.
Capt. Howard A. Stellner, Pendleton — Fort Leonard Wood, Mo.
First Lt. David H. Stern, Hammond — Patterson Field, Ohio
First Lt. James H. Stewart, Marion — Fort Mason, Calif.
Paul L. Stier, Fort Wayne — Great Lakes, Ill.
Daniel D. Stiver, South Bend
First Lt. Vergil S. Stoelting, Winchester — Fort Riley, Texas
Capt. Harold J. Stoen, Lafayette
First Lt. David F. Stone, Indianapolis
First Lt. Destiny E. Storey, Washington — Carlisle Barracks, Pa.
Capt. Urban F. Stork, Evansville
Capt. Charles F. Stouder, Gosport
Wendell Stover, Boonville — MacDill Field, Fla.
First Lt. Martin B. Strange, New Albany
Capt. Tyler J. Stroup, Indianapolis — Hot Springs, Ark.
First Lt. Elsworth K. Stucky, Indianapolis — Camp Shelby, Miss.
Capt. John M. Sullivan, Terre Haute — Fort Sam Houston, Texas
Capt. Dan E. Talbott, Indianapolis — Robbins Field, Ga.
Capt. Richard W. Terrill, Fort Wayne — Camp Adair, Ore.
First Lt. Hugh K. Thatcher, Indianapolis — Camp Carson, Colo.
First Lt. Everett W. Thomas, Leesburg
Capt. Morris E. Thomas, Indianapolis — Fort Custer, Mich.
Capt. Kenneth Thornburg, Indianapolis — Fort Harrison, Ind.
First Lt. Charles E. Thorne, New Castle — Omaha, Neb.
First Lt. William R. Tipton, Greencastle — Minter Field, Calif.
Capt. E. Paul Tischer, Indianapolis — Randolph Field, Texas
Capt. Carl J. Trout, Lafayette — Fort Hayes, Ohio
First Lt. Jose A. Torrella, Indianapolis — Camp Atterbury, Ind.
First Lt. Fred L. Toumey, Indianapolis — Shreveport, La.
First Lt. Daniel C. Tweedall, Evansville — Mitchell Field, Long Island, New York
Capt. Clarence Van Arsdall, Terre Haute — Fort Hayes, Ohio
Capt. Nathaniel Van Dorf, East Chicago
Major Metodi Velkoff, Fort Wayne — Fort Hayes, Ohio
First Lt. Karl W. Vetter, Elkhart — Sioux Falls, S. D.
Capt. Charles L. Viney, Logansport — Fort Hayes, Ohio
First Lt. George W. Wagoner, Burrows — Delray Beach, Fla.
Capt. E. N. Walsh, Whiting — Fitzsimmons Hospital, Denver
Capt. James W. Ward, Mishawaka
James R. Ware, Andrews
Lt. Col. F. C. Warfel, Indianapolis — Camp Shelby, Miss.
First Lt. James B. Warriner, Indianapolis — Carlisle Barracks, Pa.
William W. Weaver, New Albany
Charles O. Weddle, Lebanon
Mallory P. Weems, Jeffersonville
Edwin B. Weinstein, Richmond
First Lt. Eugene Weiss, South Bend
First Lt. Irving Weisman, Fort Wayne — Madison, Wis.
Capt. Mell B. Welborn, Evansville — Fitzsimmons Hospital, Denver
First Lt. Jacob T. Whallon, Indianapolis — Williams Field, Arizona
Capt. Arthur Whitlateh, Milan — Cheyenne, Wyo.
First Lt. Eugene H. Wieker, Gary — Carlisle Barracks, Pa.
Capt. Irvin W. Wilkins, Indianapolis — Madison, Wis.
Capt. Robert W. Wilkins, Fort Wayne
First Lt. Charles E. Williams, Dale — Camp Grant, Ill.

Capt. Everett W. Williams, Columbus	Fort Hayes, Ohio
Lt. (j.g.) Francis W. Williams, Jr., Pendleton	Norfolk, Va.
Charles F. Willis, Evansville	
Capt. Fred L. Wilson, Terre Haute	Patterson Field Ohio
First Lt. Fred M. Wilson, Kokomo	Kayefield, Miss.
First Lt. Robert H. Wischeart, Lebanon	Turner Field, Ga.
First Lt. William L. Wissman, Columbus	Carlisle Barracks, Pa.
Capt. Morton F. Wolfe, New Albany	
Lt. Russell W. Wood, Oakland City	Great Lakes, Ill.
First Lt. William H. Wood, Evansville	Lincoln, Neb.
First Lt. Halden C. Woods, Markle	Camp Atterbury, Ind.
First Lt. Bruce A. Work, Frankfort	
Lt. (j.g.) R. S. Yegerlehner, Kentland	Norfolk, Va.
First Lt. William S. Yocum, Coal City	Carlisle Barracks, Pa.
First Lt. Gerald S. Young, Muncie	Victorville, Calif.
Capt. Philip E. Yunker, Evansville	
Capt. B. K. Zaring, Columbus	
First Lt. Henry J. Zimmer, Mishawaka	Rome, N. Y.
First Lt. Hyman H. Ziperman, Indianapolis	Carlisle Barracks, Pa.
First Lt. Elmer S. Zweig, Fort Wayne	

INDIANA UNIVERSITY NEWS NOTES

In compliance with military and civilian needs for more nurses the Indiana University School of Medicine is making plans to increase its beginning classes in the Nurses' Training School. President Herman B Wells has announced a plan whereby loans to meet all of the student's cash outlay will be available, re-payable after graduation. Another step directed toward increasing nursing manpower is the waiving, temporarily, of the requirement calling for one year of college as a prerequisite to entering the nurses' school. President Wells also pointed out that if high school graduates are admitted they must be eighteen years of age by January 1, 1943; they should not come from the lower third of their high school classes; and if they have had one or more years of college training, but without specific course content, their academic standing must be satisfactory.

Despite heavy inroads by the Army and Navy into the staff and a stepped-up teaching program the Indiana University Medical Center served approximately as many patients in the fiscal year ending June thirtieth as in previous years, according to Dr. W. D. Gatch, dean of the medical school. Dean Gatch stated in his annual report that 11,053 patients were treated in the three university hospitals—James Whitcomb Riley Hospital for Children, William H. Coleman Hospital for Women, and Robert W. Long General Hospital. This was only forty-nine patients less than were admitted in the previous year.

Riley Hospital admitted 3,706 children, 135 more than the previous year. Coleman Hospital admitted, 3,314, a reduction of 98 patients, and Long admitted 4,033, a reduction of 86. Out-patient visits totaled 55,750, and the total patient days amounted to 174,322.

In addition to the loss of physicians, teachers and nurses to the armed forces, the medical center's problems have been increased in various ways by the nation's entry into the war, Dr. Gatch reported.

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

In addition to our Professional Liability Policy for private practice we issue a special

MILITARY POLICY

to the profession in the Armed Forces at a

REDUCED PREMIUM

THE MEDICAL PROTECTIVE COMPANY

OF

FORT WAYNE, INDIANA

COOK COUNTY
GRADUATE SCHOOL OF MEDICINE

(In Affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique with practice on living tissue, every two weeks throughout the year. General Courses One, Two, Three and Six Months; Clinical Courses; Special Courses.

MEDICINE—Two Weeks Intensive Course will be offered starting October 5th. Two Weeks Course in Gastro-Enterology will be offered starting October 19th. One Month Course in Electrocardiography and Heart Disease every month, except August and December.

FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting September 21st. Informal Course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting October 5th. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting September 21st. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14th. Clinical and Special Course every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28th. Five weeks Course in Refraction Methods starting October 19th. Informal course every week.

ROENTGENOLOGY—Courses in X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES.

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore Street, Chicago, Illinois

Among these was an increasing turn-over in the non-professional staff, due to competition from private industry, he related. Another was the financial problem which confronted nearly 50 per cent of the medical students when a third semester was added to the year's schedule, and the students were deprived of summer vacation earnings. This has been overcome to some extent by loan funds provided by the Kellogg Foundation to the extent of $10,000, Mrs. William Louden to the extent of $1,000, and Hugh McK. Landon to the extent of $2,500, Dr. Gatch reported.

Dr. Gatch reported that there has been a loss of seven resident physicians, including all but one—a woman physician—on the staff of internal medicine. The demand for nurses is even greater than the demand for physicians, and sixty-four graduate nurses have left the service. It is contemplated that a skeleton staff of nurses will be maintained to supervise trained nurses' aids, he reported.

"Despite the unrest and distraction caused by the war, our staff has been able to do a creditable amount of research," the dean said. "Dr. James Battersby and Dr. Thomas Bauer gained honorable mention for an exhibit presented at the American Medical Association, Dr. Harold Trusler continued his work on plastic and restorative surgery, Drs. Lyle Weed and Thurman B. Rice published exhaustive studies on bacteria of the skin and in the air of operating rooms, Dr. R. N. Harger published the result of a noteworthy investigation of the concentration of ether in the blood in the course of anesthesia, and Dr. Wakim has worked on a number of important problems in applied physiology." The student body is doing better than average work, despite the strain of the accelerated teaching program, Dr. Gatch said.

LOCAL SOCIETY REPORTS

Dearborn-Ohio County Medical Society members met at the Chat 'N' Nibble Tea Room, at Lawrenceburg, on June twenty-fifth. Dr. Hugh Wilkerson, of the United States Public Health Service, Indianapolis, was the speaker of the evening. Thirteen members attended the meeting.

* * *

Gibson County Medical Society members held a meeting on June eighth at the Emerson Hotel, at Princeton. Dr. Kenneth G. Kohlstaedt, of Indianapolis, presented a paper entitled "New Developments in the Treatment of Hypertension." Twenty-three members were present.

* * *

Parke-Vermillion County Medical Society members held a meeting at the Vermillion County Hospital, at Clinton, on June sixteenth. Dr. Hugh Wilkerson, of Indianapolis, spoke on "The Care and Management of Venereal Diseases." Eight members were in attendance at this meeting.

Randolph County Medical Society members held their June meeting at the Beeson Park Club House, at Winchester, on the eighth. Dr. Arvin Henderson, of Ridgeville, was the guest speaker of the evening, his subject being "Surgery Aspects of Atelectasis," followed by a discussion by Dr. I. E. Brenner, of Winchester. Thirteen members attended the meeting.

Books

RECEIVED

WAR MEDICINE. A symposium on Surgery, Aviation and Naval Medicine, and General Medicine. Edited by Winfield Scott Pugh, M.D., Retired Commander, (M.C.) United States Navy; formerly Surgeon, City Hospital, New York. 565 pages, including numerous illustrations. Cloth. Price, $7.50. The Philosophical Library, New York, 1942.

* * *

THE CARE OF THE AGED. (Geriatrics) Fourth Edition. By Malford W. Thewlis, M.D., Attending Specialist, General Medicine, United States Public Health Hospitals, New York City. 589 pages with 50 illustrations. Cloth. Price, $7.00. The C. V. Mosby Company, St. Louis, 1942.

ABSTRACT

PARROT FEVER FROM COMMON PIGEONS

The case of a policeman with psittacosis whose only known contact with birds was with common pigeons, is reported in *The Journal of the American Medical Association* for April 4 by Henry Alicandri, M.D., Brooklyn. He points out that the disease, which is highly communicable, has been transmitted to man by parrots, parakeets, love birds and rarer birds of the parrot family and that this isolated case warrants closer investigation of pigeons as a possible source of infection.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, June, 1942

DISEASES	June 1942	May 1942	April 1942	June 1941	June 1940
Tuberculosis, Primary	2	3	6	0	0
Tuberculosis, Active	111	170	115	138	172
Tuberculosis, Arrested	9	25	5	0	0
Chickenpox	132	363	460	89	208
Measles	305	875	573	1197	77
Scarlet Fever	96	299	450	131	198
Smallpox	6	3	3	1	16
Typhoid Fever	7	7	3	13	19
Whooping Cough	168	281	181	98	137
Diphtheria	9	11	22	25	13
Influenza	14	20	97	17	25
Pneumonia	25	47	80	37	55
Mumps	59	195	161	56	205
Undulant Fever	2	1	4	2	13
Cerebro-Spinal Meningitis	1	3	3	1	7
Malaria	2	0	0	0	0
Vincent's angina	6	2	1	0	0
Rubella	19	156	80	73	0

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 OCTOBER, 1942 NUMBER 10

PRESIDENT'S ADDRESS*

MAYNARD A. AUSTIN, M.D.

ANDERSON

I deeply appreciate the honor and privilege which you as members of the Indiana State Medical Association conferred upon me two years ago, but in speaking to you this morning I also realize the responsibility of utilizing your time to the best advantage in reviewing certain things that affect us and our profession. I could devote my entire time to discussing the one subject of "war" and our part in it, but I am taking it for granted that you have read as much as I have on all the various phases of our participation, our dislocation, and our regimentation.

Were I to go into a discussion of the work of the entire Procurement and Assignment Service, it would have to be commendatory since our state secretary has had such a large part in its organization. The magnitude of its work warrants my saying that we should wonder that they have accomplished so much, rather than criticize their mistakes and failures. Each community has been given the responsibility of selecting those who can best be spared, and closer check of the needs of each county will be made, for further demands will require an increase of from nine hundred to fourteen hundred as the number of physicians that Indiana must supply to meet the emergencies we are facing.

A situation is developing concerning which the government must quickly make a decision, that of the refugee physician who is refused service in our military machine but is permitted to step into civil practice and reap an undeserved harvest. *Unless the government conquers this problem soon, the resentment of the profession will affect the morale both at home and abroad.*

The entire morning could be devoted to a discussion of the various phases of our relations to general problems. This, however, would only be repetitious to those who seriously follow and read the reports of the American Medical Association and its associated state societies, as must be done by the members of your Council and your Executive Committee. In my various contributions to the Indiana State Medical Journal during the past year I have avoided boiler plate and pot metal platitudes and have tried to give the profession a series of different articles, stressing the needs of the physician himself and his duties as a citizen rather than definitely summarizing medical problems. Our complacency and general lack of knowledge of other than newspaper headlines has been the cause of much of the adverse criticism we have received and has given our detractors ample opportunity to foster so-called "welfare and social security plans," which now confront us with either regimentation or unionization.

The Executive Committee has had as many as sixty-five different items to consider at their monthly meetings, and each member has been supplied with a digest of the national situation in special bulletins sent out by the American Medical Association. I can not recommend anything more important than that you read the organization notes in THE JOURNAL, thus advising yourself concerning the local problems in Indiana by reading the reports of the meetings of the Council and the Executive Committee. Particularly do I wish to emphasize the work of the various other committees in the state association, and for fear that many of you have not done so, I am taking the liberty of digesting their reports as published in your September Journal. First, I wish to compliment the editors of THE JOURNAL of the Indiana State Medical Association for the excellency it has attained by their management and direction, both as to contents and make-up. Second, we have reason to be proud of the financial report of our treasurer, which shows that we have at the present time some sixty thousand dollars in our treas-

*Presented before the General Meeting of the Indiana State Medical Association at French Lick, September 30, 1942.

ury and that twenty-four thousand dollars of this fund is now invested in government bonds. This may seem to be more than is necessary, but must be considered as the savings over a period of ninety-two years. Third, words of highest praise should be given the personnel at the state headquarters' office for their work in taking care of the multitude of routine matters which have to do with the state organization, also for their having taken the further responsibility of doing the work necessary for the Procurement and Assignment Service, which has resulted in overtime routine and for which the government has not so far made provision.

ADVOCATES ANNUAL REGISTRATION FEE

We should give most serious thought to a registration of every practitioner in the state and provide, by a small fee, a sum to be given to our State Board of Medical Registration and Examination to enforce our medical practice laws, rather than have them enforced by a civilian organization.

The Publicity Bureau has furnished the state with releases from time to time of newsworthy and noteworthy topics in medicine and has given the people advice concerning advances in diagnosis and treatment, as well as shown the needs for greater cooperation of the public in recognizing their part in the control of epidemic diseases by proper hygiene and preventive immunization.

Now that we have many reasons for more than the individual interest of a few persons in the medical history of Indiana, we should provide a proper fund for this work to be carried on by Doctor Kiser without imposing upon him the details of research and compilation. Doctor Maple is to be commended for his years of service as chairman of the Necrology Committee and for his annual report of the deaths of our members. Many of our members now in service may be called upon to make the supreme sacrifice, and some suitable memorials should be provided, as the least we could do to honor their memory and their sacrifice. Dr. Charles R. Bird is to be commended as one of many men over the state who have given so generously of their time to further the work of the Procurement and Assignment of physicians to the military needs of our country.

The last report showed that we had over EIGHT HUNDRED members in service, and as many more will probably be called upon to meet the needs of the military, public health, industrial and war work transient civilian population. And we have been told that unless the profession meets the demands that will be made upon it, the government will take that responsibility and will do with us as they see fit and think best.

The committee appointed for the study of health insurance has a report which should be read by every member of our association. This report, as outlined by Doctor Forster, digests the many plans that have been tried out by various states in trying to meet the demands of those who are considering the New Deal as the Utopian answer to all medical, financial and economic problems. I could well take the time reading this entire report to you, but can not do so and am asking that each member study its recommendations most seriously.

The work of the Committee on High School Athletics will be of even more importance in the future than ever before. Basket ball stars will be completely forgotten in the new plans for physical training of all high school boys, which begins at the age of fifteen and is carried out to qualify them in their development so as to supply the air force with young men able to do the work they will have to do. This need was emphasized by Captain Adams and Brigadier General Grant at the recent meeting of the National Aero Medical Society held in Indianapolis. Germany and Japan have done so for years, and it is a well-known fact that in the final selection of pilots only fifteen per cent of those entering the air force have been found suitable for pilots, and that but three per cent can be given the responsibility of the bombers and multi-motored planes.

MENTAL HEALTH A NATIONAL PROBLEM

The Committee on Mental Health stresses the rising tide of defectives and their serious effect upon our military needs and civilian ability to provide for them. The elimination of these misfits from military service is requiring a greater proportion of neuropsychiatrists than has been taken from any specialty, and ten of the sixteen specialists in Indianapolis have been inducted into service.

Following the last war the government reported that thirty thousand of the defectives who entered service had become permanent wards of the nation, and that *each one of these would cost the people an average of twenty thousand dollars in pensions and hospitalization during their lifetime.* We have over two thousand of these unfortunates in the hospital at Marion, Indiana, at the present time.

The Committee on Services for Crippled Children is to be commended, especially with reference to their response to the demands of the unfortunate victims of infantile paralysis which has taken such a toll over the state of Indiana. And I wish in particular to commend the action of the Madison County Committee for using a part of its Birthday Ball Fund in financing a nurse from their county, thus enabling her to go to Minneapolis and take the training offered in the Sister Kenny method of treatment for this disease.

The Indiana State Board of Health, in its work for Maternal and Child-Health, has carried out an educational program of utmost value, and in all of its work it has sought the advice and counsel of the Indiana State Medical Association. So much of its work is a radical departure from local care and personal responsibility that it has been considered as the entering wedge of a complete socialization of medicine. But we must admit that many mothers and children have been saved and have

become assets of the community rather than a liability.

The method of solving the problem of cancer control by educating the public as to the necessity for early examination and treatment, as sponsored by this committee, is to be highly commended, and the need for further work to be continued in even a more strenuous manner is of the greatest importance since we know that the incidence of this disease is increasing to such a terrible extent.

The venereal disease problem is of such importance during wartimes that unless it is controlled by government restrictions it might reduce our military efficiency as much as forty per cent, judging from the past. Education and control of prostitution brought this down to four per cent in the last war, and with the use of sulfonamides in gonorrhea and compulsory treatment or arrest of infected syphilitics we can greatly reduce the invalidism of these victims of the black plague.

STRESSES INDUSTRIAL MEDICINE

The study of industrial health problems began after the last war and has now assumed a major field in our scheme of industrial efficiency. Instead of using merely first aid and rehabilitation following accidents, accident prevention, industrial hazards and diseases are being brought under control, and the loss of working days from sickness and accident has been reduced from a high point of thirty to a new low of eight or less.

Doctor Rozelle is to be commended for his enthusiasm as chairman of this committee, and now that he has been inducted into service his work must be carried on by the other members of the committee so as to follow the plans of the Council on Industrial Health of the American Medical Association, sponsored so ably by Dr. Clarence D. Selby, medical director of the General Motors Corporation.

The work of the committee to study the problems of the cultists and irregular practitioners can, due to financial handicaps, only function as an advisory committee. And as there were no funds available to the State Board of Medical Registration and Examination to take action against violators of the Medical Practice Act, the situation over the state became so serious that the Better Business Bureau sponsored a housecleaning that was sorely needed. But it should not be a matter for which private funds should be used to prosecute violators of established laws. Until we have a compulsory registration of all licensed practitioners, we can have no knowledge of any other than the most flagrant violators, and our hands are tied insofar as our making any effective effort to stop the influx of quacks and charlatans into our midst is concerned.

The new law sponsored by the Anti-tuberculosis Committee, requiring examinations of all teachers, janitors and school bus drivers, has been one of the best steps ever taken, marred in some places by cheap service for incompetent x-ray and chest examinations due to action of local school boards and trustees farming out this work to the lowest bidder. Many cases of latent and active disease have been discovered and proper restrictions taken that will prevent a recurrence of conditions, such as that in one school where a tubercular janitor had been employed and fourteen cases of tuberculosis were traced to his contacts.

COOPERATES IN CIVILIAN DEFENSE WORK

The work of the Civilian Defense Council and its committees should be given most serious attention and cooperation, since Indiana is now classed as fourth in importance in the country as to its vulnerability from the standpoint of the amount of war material it is producing. Some communities have taken this matter seriously and have acted to give the people ample protection, but in others only desultory work has been done in a too complacent manner. Indiana is now only a fourteen-hour flight from Germany or from attack by Jap planes from their nearest base in the Aleutian Islands, and only a seven-hour flight from carrier-base points of attack in the Atlantic or Pacific.

Doctor Kennedy's work in research on sickness insurance is to be praised, for he has so faithfully carried out his work independently for many years and has had such a good opportunity to make first-hand study of European plans during his twenty-two trips to Europe. If tax plans are carried out so that they will lower the American standard of living, the available income that is left to the individual will permit little or no surplus to be spent on adequate medical care and will permit government intervention with all its sad endings.

The problems of the committee devoted to the study of physical therapy have been further complicated by the fact that we have been too slow in recognizing the value of this valuable adjunct to our methods of treatment in certain cases and that they were used by many quacks and irregulars as a part of unscientific procedures. With the growing demand to meet proper needs, action had to be taken to suppress these charlatans, and they have reacted to this by forming a union and affiliating with the American Federation of Labor. Whether or not labor money will be used to foster this imposition upon the people remains to be seen, but we do know that they are planning to demand separate boards to license these unqualified practitioners.

MEDICAL RELIEF PROBLEM

The Indiana State Medical Association suffered a severe loss when Dr. J. S. Leffel was taken away from us, and his passing removed from his community a man who was both loved and respected at home and over the state where he has done so much for the profession as chairman of the Committee on Medical Relief. Doctor Asher, who takes his place, should be given our active support, and we know that he will be a worthy successor.

The contacts I have had over the state in the past year have given me a broader knowledge of many problems, and the courtesies extended to me have been most sincerely appreciated. If my work

has merited any measure of appreciation, I shall take it that it is because my incentive to serve you has been well repaid by my knowing that my friends would support me whenever asked. But I also know that when I turn my responsibilities over to Doctor McCaskey in January, you will have the leadership of a man whom I have learned to respect, and who may be faced by increasing problems that will require even more help and counsel than you have given me.

THE ETIOLOGY AND SURGICAL TREATMENT OF GASTRODUODENAL ULCER*

LESTER R. DRAGSTEDT, M.D.†
CHICAGO, ILLINOIS

The extensive literature and numerous current papers on all phases of gastric and duodenal ulcer testify both to the importance of the problem and to the prevailing uncertainty with respect to etiology and treatment. Indeed many writers go so far as to say that the cause of ulcer is entirely unknown, a stand which is hardly justified in view of the many facts which have been uncovered in various laboratories in the past few years. As a direct result of planned experimental procedures the disease has been caused to develop in the lower animal and to duplicate in almost every particular the lesion encountered in man. The gross and histological appearance of the experimental ulcer exactly resembles the clinical lesion, and it has been observed to perforate, to cause profuse hemorrhage, and to heal under a type of medical management which resembles that found effective in man. In addition, the alterations in the physiology of the alimentary tract under which experimental ulcers may be expected to develop and become chronic are well understood, and the factors involved may be fairly accurately appraised. There are not many diseases concerning which more can be said. It does not lessen the significance of this experimental work to concede that much of the knowledge is not new and that the evidence obtained from the lower animal to a large extent only substantiates older views that have arisen as a result of clinical experience and reflection.

The problem of the cause of gastric and duodenal ulcer is a part of the more general question of the resistance of the gastro-intestinal tract to the digestive action of its own secretions. This was well stated in a thoughtful paper by Joseph Warren[1] more than fifty years ago:

"The question is: Why do organisms which manifest such power of digesting and assimilating the material they require leave quite intact those organs or tissues where these processes go on so actively? Why does the stomach digest various albuminous substances so readily, and yet fail to attack its own walls containing substantially the same material? Why do the intestines, with their much more varied power of digestive action, remain undisturbed and uninjured by this activity? Why does the pancreas secrete at least three vigorous ferments, and yet work on unaffected by each and all of them?"

John Hunter[2] interested himself in this problem and explained the resistance of the normal gastric wall to digestion on the basis of a vital principle in the following picturesque language:

"If it were possible for an animal to live in the stomach of another animal, supposing digestion not to be going on in that stomach, it would then live while digestion was going on; for that animal would not be in the least dissolved, because the living principle in the animal would prevent or counteract the digestive quality of the stomach. If this was not the case then we might readily suppose that even though the animal life was not immediately affected by the digestive power, yet at last it might be destroyed by the external and extreme parts of the animal being digested, and so the animal be obliged to die, like a person with mortification. But that a living animal will not be so dissolved is every day proved by worms, maggots or flies, living in the stomach of many animals; and if it was a power that could act upon a part that had the living principle, as well as an acid can, then the stomach itself would certainly be dissolved. If one could conceive a man to put his hand into the stomach of a lion, and hold it there without hindering the digestive powers, the hand would not in the least be digested; and if the hand of a dead man was put in at the same time, whether separated or not from the body, that hand would be digested while the other would not."

From the time of Hunter many men have speculated and worked in this field, and the view has steadily gained headway that ulcer of the stomach is in some way due to a local loss of resistance on the part of the mucous membrane to the digestant activity of the gastric juice. The widely adopted term "peptic ulcer" is an expression of that view.

---

* Presented before the Section on Surgery of the Indiana State Medical Association at French Lick, September 30, 1942.

† Professor of Surgery, The University of Chicago.

[1] Warren, J. W.: *Boston M. & S. J.* **116**:249, 1887.

[2] Hunter, J.: Essays and Observations on Natural History, Anatomy, Physiology, Psychology and Geology, London, J. Van Voorct, 1861, vols. 1-2.

The work of Exalto[3] and of Mann[4] and his associates provided for the first time a method for the regular production of ulcers in the intestines of dogs without the use of external corrosive agents. Their finding that the diversion of bile and pancreatic juice to the exterior or into the lower ileum would lead to the development of perforating ulcers in that part of the small intestine which first receives the gastric content has been amply confirmed. There seems no reason to question the view that it is the neutralizing effect of the alkaline pancreatic juice which normally protects the duodenal mucosa from the acid gastric content. It is probable that the clinical application of this finding is not direct, since it does not seem likely that bile and pancreatic juice often fail to reach the duodenum. A few such cases have, however, been observed. The chief significance of the work lies in the unequivocal support it affords to the old theory that the corrosive action of the gastric juice, under certain circumstances, may produce and maintain a chronic ulcer.

The observations of the writer[5] and his associates that all living tissues will succumb to the digestant action of the gastric juice, where conditions are such that they are exposed to the pure undiluted secretion, provides further support to the theory of the "peptic" genesis of ulcer. Whereas it was found that organs such as the spleen and kidney, when implanted into the wall of the normal stomach and consequently exposed to the usual gastric content, remained little affected, they were promptly digested away when they were implanted into the wall of an isolated stomach pouch and exposed to the action of pure undiluted gastric juice. In a somewhat similar type of experiment it was demonstrated that the pure fundus secretion can digest away the normal mucosa of the alimentary tract, including that of the stomach itself, the resulting defect displaying all the gross and histological features of chronic progressive ulcer in man. A small isolated pouch of the dog stomach was made, in some cases with the vagus innervation intact (Pavlov pouch), in others with the vagi cut (Heidenhain pouch). The open end of these accessory stomach pouches was then sutured into the jejunum or ileum. Gastric juice secreted in the isolated stomach in response to meal-taking passed immediately into the as yet empty intestine. In six animals in which the gastric juice was made to pass into the ileum an ulcer developed in the adjacent area in every case (100 per cent) and in the jejunum in eleven of a total of thirteen experiments, or 85 per cent. The ulcers always developed in the intestinal wall adjacent to the line of anastomosis with the stomach, but never in the gastric mucosa. They presented the same clean, punched-out appearance of the lesion in man. Several caused profuse hemorrhage, many perforated, and none showed any tendency toward spontaneous healing.

Nature performs an experiment similar to these in the so-called "Meckel's diverticulum ulcer," several examples of which have come under my care. Aschner and Karelitz[6] and Lindau and Wulff[7] have collected a number of cases in the literature in which an ulcer has been found in the ileum adjacent to the entrance of a Meckel's diverticulum. In these cases the diverticulum has been found to be lined with heterotopic mucosa which in some instances has been proved to secrete acid and pepsin.

In all of the experiments in which pure gastric juice from an isolated pouch of the stomach is permitted to flow into the lower intestine, the ulcer forms in the intestinal rather than in the gastric mucosa. Since the exposure is similar, one must conclude that the gastric mucosa has the greater resistance to digestion. That this protective capacity is not absolute has been demonstrated clearly by means of the completely isolated stomach in which the secretory vagus innervation has been preserved. Dogs prepared in this way have been under almost continuous observation in our laboratory for the past twelve years. If the alkalosis and the dehydration incident to the total loss of gastric juice are compensated for by the intravenous injection of adequate salt solution, these animals may survive in good condition for many months. They secrete volumes of gastric juice ranging from 1,500 to 2,500 cc. in twenty-four hours with a free acid content of 130 to 140 clinical units and a high pepsin content. In the great majority of experiments a large, sharply punched-out ulcer develops in the middle portion of the isolated stomach and causes profuse hemorrhage or perforates and produces rapidly fatal peritonitis. The development and the progress of gastric ulcer have been observed by introducing a cystoscope through the external cannula into the cavity of the stomach. The preservation of the secretory fibers of the vagus nerves to the isolated stomach seems to be a matter of some importance in the genesis of the ulcer, since Ivy reported that in his extensive experience with the same preparation, after the vagi have been severed, no ulcer was found.

Under normal conditions the gastric wall is not digested away because it is not exposed to pure gastric juice. This conclusion follows from a consideration of the experimental evidence just presented and of those factors which normally regulate the secretions of the stomach. Carlson found that the empty stomach of the average healthy young adult man, when aspirated in the morning before breakfast, contained usually less than 50 cc. of fluid, often bile stained and with no free acid or at most only a slight amount. The normal stimuli for gastric secretion, such as the sight,

[3] Exalto, J.: *Mitt. a.d. Grenzgeb. d. Med. u. Chir.* **23**:13, 1911.

[4] Mann, F. C., and Williamson, C. S.: *Ann. Surg.* **77**:409, 1923.

[5] Dragstedt, L. R.: *Ann. Surg.* **102**:563, 1935.

[6] Aschner, P. W., and Karelitz, S.: *Ann. Surg.* **91**:573, 1930.

[7] Lindau, A., and Wulff, H.: *Surg. Gynec. and Obst.*, **53**:621, 1931.

the odor and the taste of food, are followed so promptly by its ingestion that the secretion from the fundus is largely diluted and neutralized. The secretion of gastric juice dependent on the chemical mechanism occurs in response to the presence of food in the stomach or the upper intestine, and the rate of secretion falls off rapidly when the stomach becomes empty. It is thus evident that food, which in normal persons is the stimulus for the formation of gastric juice, is also the chief factor which protects the tissues against its corrosive activity.

A continuous secretion of gastric juice occurs which is apparently not dependent on psychic stimuli or the presence of food in the stomach. The volume of this secretion appears to be slight as compared with the large amounts called forth in response to the taking of food. While the initial acidity of this juice is probably comparable with that of the food-stimulated secretion, the small volume permits almost complete neutralization by the mucus of the pyloric antrum, swallowed saliva and possibly also regurgitated duodenal juices.

Since the fundus secretion appears to be elaborated at a constant acidity, it is clearly this neutralization by food and the duodenal secretions that protects the mucosa from ulceration. A failure in this neutralizing mechanism would lead to the development of a progressive ulcer in the stomach or duodenum even though the mucosa was previously normal. This fact is of considerable significance, since it makes it unnecessary to postulate a local loss of resistance of the mucosa to account for the lesion. The careful histological examination of a large number of resected stomachs in Konjetzny's material failed to reveal evidence of local vascular injury, embolism or thrombosis, as called for in the theory of Virchow and Hauser. It is not to be supposed, however, that the resistance of the mucosa to digestion would always be uniform throughout or that a uniform exposure of the entire surface would always occur. Such variations should be of chief significance in determining the site of the resulting ulcer and its shape. The more general effect is manifested by the small erosions, hemorrhages, and cellular infiltrations in the neighboring more resistant or less exposed mucosa. According to this view the so-called "ulcer gastritis" is of similar origin to the ulcer itself. It should be more amenable to medical treatment and perhaps for this reason is seen less frequently in those cases subjected to prolonged medical management before referred for surgical treatment.

A very important remaining problem is to outline those factors which lead to the accumulation in the stomach of a content that resembles pure gastric juice in acid and enzyme concentration. Pyloric stenosis with retention and excessive "continuous secretion" are two conditions which come readily to mind. Pyloric stenosis may raise the acidity of the gastric content by causing a long-continued secretion of gastric juice and possibly also by preventing the backward regurgitation of duodenal secretions as indicated by the studies of Boldyreff[8] and Elman.[9] The mechanism of the "continuous secretion" of gastric juice is little understood, and the factors that alter its volume are unknown. There is evidence that this secretion is excessive in many ulcer patients and is, perhaps, "nervous" rather than "humoral" in origin.

It seems unlikely that pancreatic juice, bile and succus entericus fail to reach the duodenum, and that the absence of these secretions can account for any large number of ulcers in man. There remains, however, the possibility that an excessive volume of gastric juice might exhaust the neutralizing mechanism of the stomach and the duodenum and then attack the mucosa. An excessive secretion in the empty stomach would be especially dangerous since the buffering effect of the food is ordinarily so effective. Attempts have been made to provoke such a secretion in animals both by stimulating the secretory nerves in the vagi and by the use of histamine. In 1927, Silbermann[10] reported the occurrence of ulcer in the stomach and duodenum of dogs subjected to repeated sham feeding experiments. Double esophagostomy was performed on twenty-three dogs, and feeding was accomplished through the peripheral esophageal opening. These dogs were allowed to eat for forty to sixty minutes three times a day, the swallowed food escaping to the outside via the fistula. Ulcer developed in the stomach in every case in fourteen to forty-nine days. Büchner, Siebert and Malloy[11] reported the occurrence of ulcer in the stomach of rats after repeated injection of histamine. The recent work of Walpole, Varco, Code and Wangensteen[12] is especially interesting and important. These workers secured continuous stimulation of the gastric glands by Code's method of implanting pellets of histamine mixed with beeswax into the muscles or beneath the skin. A copious, continuous secretion of gastric juice resulted; this result could be obtained daily for long periods. Typical chronic perforating ulcer appeared in the stomach or the duodenum of all the common laboratory animals so treated.

The demonstration that excessive secretion of qualitatively normal gastric juice will produce ulcer in the stomach and duodenum of lower animals is obviously of the greatest significance from the standpoint of the clinical problem. No one can deny that the same effect would in all prob-

[8] Boldyreff, W.: *Quart. Jour. Exper. Physiol.* **8**:1, 1915.

[9] Elman, R., and Hartman, A. F.: *Arch. Surg.* **23**:1030, 1931.

[10] Silbermann, I. S.: *Zentralbl. f. Chir.*, **54**:2385, 1927.

[11] Büchner, F.; Siebert, P., and Malloy, P. J.: *Beitr. Z. path. Anat. u. z. allg. Path.* **81**:391, 1928.

[12] Walpole, S. H.; Varco, R. L.; Code, C. F., and Wangensteen, O. H.: *Proc. Soc. Exper. Biol. & Med.* **44**:619, 1940.

ability be produced in man were the experiment carried out. Further, there is plenty of evidence that an excessive volume of gastric juice is secreted by many, perhaps most, patients with ulcer, although the cause of the hypersecretion is unknown. The early gastro-enterologists noted that the stomach contents of patients with ulcer, after an Ewald test meal, were more acid than those of normal people, and the concept of hyperacidity as a cause of ulcer arose. When Carlson pointed out that this acidity approached but did not exceed the acidity of pure normal gastric juice, the idea of a pathologic hyperacid gastric juice had to be abandoned in favor of the concept of hypersecretion of normal juice with deficient neutralization. On the basis of present information it seems likely that the patient with ulcer secretes more gastric juice in response to food-taking than the normal person and also, what is perhaps more important, that he secretes more gastric juice when there is no obvious stimulant. This fact is illustrated in an observation I made several years ago and also has been noted by others. In several patients with duodenal ulcer the stomach was lavaged in the evening to remove all traces of food, and constant aspiration was maintained all night to recover as much of the continuous secretion as possible. From 500 to 1,200 cc. of clear fluid was obtained, with free acid that in one case reached ninety clinical units. Since this juice was obtained when the upper gastro-intestinal tract was empty of food and the patient was asleep, it is clear that the usual stimuli (nervous and chemical) were not operating. Under similar conditions normal persons yielded usually less than 300 cc. of secretion, with free acid rarely above fifty clinical units and often entirely absent.

What is the cause of this excessive continuous secretion of gastric juice? Is it due to the continuous formation and absorption of gastrin or histamine into the blood stream, or does it depend on abnormal activity of the nervous secretory mechanism? These questions remain unanswered.

While the possibility of continuous absorption of gastric secretory stimuli, such as histamine, must be admitted as a cause for the hypersecretion in patients with ulcer, the view that the hypersecretion is due to abnormal activity of the vagus secretory mechanism seems more attractive at present. For a number of years many investigators have commented on the high incidence of ulcer in those persons whose occupations involved unusual anxiety, stress and strain, and the tendency for healed ulcers to recur during periods of great mental and emotional tension. Cushing[13] marshaled a good deal of evidence implicating disturbances in the central nervous system as a causative factor in ulcer and reported the occurrence of acute perforating ulcer in the stomach after operation for cerebellar tumor. The central nervous system affects the gastro-intestinal tract by causing variations in the tract's blood supply, motility and secretions. The concept that irritative lesions in the brain produce ulcer in the stomach through local vasoconstriction and anemia in the mucous membrane lacks experimental support. Attempts to produce ulcer by extensive ligation of gastric blood vessels have usually failed. Disturbances in motility, particularly pylorospasm, which may cause retention and prevent the regurgitation of the neutralizing juices of the duodenum into the stomach, seem to merit more consideration. However, on the basis of the available experimental evidence on the genesis of ulcers, it seems most probable that the central nervous system plays an undoubted role in causing the disease through increasing the volume of gastric secretion. The patient with ulcer who secretes large amounts of gastric juice at night is commonly the young adult who presents the stigma of excessive nervous tension. The acute ulcers in the stomach and duodenum which have been reported following various intracranial operations might well be due to the secretion of acid gastric juice in the empty stomach brought on by stimulation of the gastric secretory centers as a result of the brain tumor itself or of operative trauma. Several years ago I had an opportunity to study the gastric contents of three patients during the first two or three days following their operations for brain tumor and to compare these findings with those obtained from patients after operations within the abdomen. In the cases of the latter, the contents secured by continuous aspiration were commonly mixed with duodenal secretions and were neutral or only slightly acid in reaction. In sharp contrast, the patients who had had intracranial operations yielded from 400 to 1,100 cc. per day of typical gastric juice with a high free acid content (80 to 110 clinical units). These findings require confirmation by a more extensive study since, if true, they suggest that some type of medical management for ulcer should be instituted after operation on the central nervous system.

The title of this paper includes the surgical treatment of ulcer, and I find that I have used my time in considerations of etiology and pathogenesis. A few remarks must suffice concerning treatment.

The concept that ulcer of the stomach and duodenum is due to the excessive secretion of gastric juice calls to mind another disease, exopthalmic goitre, where a pathologic state is produced by the excessive output of the normal product of a secretory gland, in this case an internal secretion. It is a sad commentary on our ability as physicians to realize that in both diseases we often can do no better than surgical extirpation of a large part of the glandular apparatus in our efforts to reduce these abnormal secretions.

At the present time medical measures available for the treatment of ulcer accomplish their effects through a more or less successful neutralization of the gastric acid after it has been secreted.

[13] Cushing, H.: *Surg. Gynec. & Obst.* **55**:1, 1932.

Methods to reduce the secretion itself are not yet established although some progress is being made in that direction. It is likely that the skillful use of sedatives, and more especially a re-direction of the patient's life and activity to avoid emotional strain, are significant here.

It is clear that the treatment of uncomplicated duodenal ulcer is today primarily medical and that the guiding principle is the neutralization of the gastric acid throughout the entire twenty-four hours. The degree to which this can be accomplished successfully often depends upon the volume and acidity of the night secretion. In many cases this is so great that control by the amounts of alkalies and other measures the patient can tolerate becomes a practical impossibility. In this instance surgery plays a decisive role, and here the procedure of choice, at present, is subtotal gastrectomy. Resort to this measure must be viewed as a confession of failure, however, and cannot be considered in any sense as a final answer in the treatment of ulcer. It is better than the more conservative operations so far devised, such as gastrojejunostomy, pyloroplasty, gastroduodenostomy, or local excision, but the field is open for continued experiment and study.

THE LOBELIAS IN MEDICINE

H. R. HULPIEU*
INDIANAPOLIS

Thirteen species of Lobelia[1] have been described as indigenous to the United States. All of these are herbs with alternate leaves, scattered flowers and an acrid milky juice. Three of these species have been at one time esteemed for their medical properties. These three species are Lobelia cardinalis, Lobelia syphilitica and Lobelia inflata. Only the active principle of one of these is now used in medicine and that to a limited and debatable extent. Because of a recent and widespread interest in the clinical application of this alkaloid lobeline, a brief discussion of these plants, their history as applies to medicine and their present status is apropos.

LOBELIA SYPHILITICA (Blue Lobelia; Great Lobelia)

The earliest use of this drug was by the Indians[2,3,4,5] for its supposed powers in the cure of syphilis, and because of this use it was so named by Linnaeus. Sir William Johnson[4,5] early obtained knowledge of this plant and was the first to introduce it into Europe. However, it was not until about 1750 that Peter Kalm,[6] a Swedish naturalist, returned from a trip to America and brought some of the plant from America with a glowing account of its cures by the Indians that the drug was given much consideration. The first trials seemed to justify his enthusiasm, but subsequent experiments by no means confirmed the first reports. Even as early as 1817 Thacher in his dispensatory[3] says, "It certainly possesses no power of curing syphilis, even the Indians who have the disease are glad of an opportunity of applying to the whites." In 1847 Griffith[4] states that it is "now seldom or never used." In a review of the drug the Lloyds in 1887[5] say, "Its use for this purpose seems at present quite stupid." It has never been recognized by the United States Pharmacopoeias,[7] but was listed in the Pharmacopoeia of the Massachusetts Medical Society in 1808.

The drug has some diuretic action and for this reason may have been of some slight benefit in gonorrhea.[3,4,5]

LOBELIA CARDINALIS (Cardinal-flower)

Lobelia cardinalis was stated by Barton[2,4,5] to have been used by the Indians as a worm remedy. This plant seems to have some slight diuretic or even cathartic action, but little if any true curative properties. However, little has been done with the plant, and therefore our knowledge is limited. It is not a commercial drug and has never been recognized by the United States Pharmacopoeia.[7]

LOBELIA INFLATA

Lobelia inflata is an old drug and has "at times been praised extravagantly and at others entirely neglected,"[8] or even damned. Throughout its stormy history it has been known by a large number of synonyms, a few of which are: Indian tobacco, Rapuntium inflatum (not now used), Emetic weed, Gag root, Asthma weed and Bright

* Associate Professor of Pharmacology, Indiana University School of Medicine.

[1] Robinson and Fernald: *Gray's New Manual of Botany*. American Book Co., 1908.

[2] Barton: Collections for a Materia Medica I & II, 1802-1804. *Bull. of the Lloyd Library No. 1*, Rep. Series, 1900.

[3] Thacher: *The Amer. New Dispensatory*, 3rd Ed., Boston, 1817.

[4] Griffith: *Medical Botany*, Lea and Blanchard, Philadelphia, 1847.

[5] Lloyd and Lloyd: *Drugs and Medicines of North America*, **2**, 1887.

[6] Larsen: *Amer. Jour. Syph. Gonor. and Ven. Dis.*, **24**:13, 1940.

[7] *United States Pharmacopoeias* from 1820 to 1936 inclusive.

[8] Solis-Cohen and Githens: *Pharmacotherapeutics*, Appleton, 1928.

eye. The origin of these names is not clear in every case, but most of them have arisen from the chief symptom produced by its use.

Description of the Plant and Its Botanical History

Lobelia inflata[1,2,4,5] is an annual growing in moist places, dry fields and woodland pastures. Its size varies greatly, from a few inches in dry sunny places to two or three feet in rich shady soil. The stem is erect, green, round and covered with sparse, often branched hairs. The stem may be single but is more often branched. The leaves are alternate, short stalked or sessile, somewhat oblong, averaging about an inch and a half in length, but smaller at the tip and larger at the base of the plant. The roots are few and fibrous. The flowers appear in August and are present until frost. These are about a quarter of an inch long and are borne on short peduncles arising at the angle of leaf and stem. The fruit-pod is about the same length, globular in shape and gives the impression of being inflated. It is this structure that gave the species its name. The seeds are small, oblong and rounded at the ends. Their surface is bright and glistening and appears to be made of a corrugated ridge-like network. It has been estimated that it requires twenty-five hundred of these seeds to make one grain in weight. When the plant is broken a milky juice exudes.

The crude drug is sold as green Lobelia and consists of the stems, leaves and capsules of Lobelia inflata. Brown Lobelia is the powdered seeds and contains considerably more of the active principles.

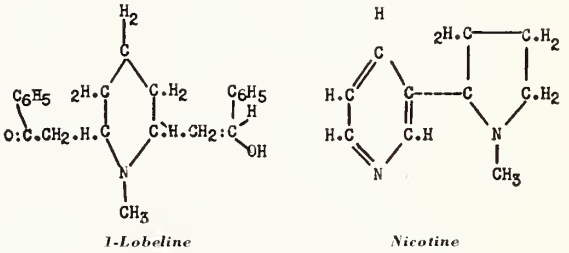
The original collector of Lobelia inflata is not known, but it was evidently sent to Europe, probably from America, early in the seventeenth century. Linnaeus mentions it in 1737 in his catalogue of the plants in the garden of George Gilfford, the wealthy Dutch banker who sponsored him. Thus it was evidently in cultivation at that time. Tournefort first clearly defined the genus in 1719, giving it the name Rapunculus, from which we secure one of the older synonyms. In 1803 Charles Plumier dedicated to his friend, Matthias de l'Obel, the Flemish herbalist, a genus founded on a plant collected in the West Indies. Linnaeus referred this plant to Tournefort's genus, Rapuntium, and adopted the name Lobelia. When this mistake was later pointed out, Linnaeus deemed it best to retain the name for the plants to which it had become most generally known and to originate a new name for the genus of Plumier.

Active Principles

Professor Calhoun,[5] of Jefferson Medical College, in 1834 made the first chemical examination of Lobelia inflata. He obtained by means of acidulated alcohol a colored liquid that he took to be the characteristic principle, which, however, was simply a cruel extract containing a salt of the alkaloid. He described it as follows, "The active principle of this plant is a brown molasses-like fluid."

In 1841[9] Professor William Proctor obtained the alkaloid lobeline as a yellow oily liquid, but stated that he was certain that if the process of purification had been repeated a colorless product would have been obtained.

Following this many workers were able to obtain very active products but all as impure extracts. In 1887 the Lloyds[5] probably obtained a nearly pure sample of lobeline, but they were not able to crytallize it. Their product would form salts and give other chemical reactions indicating a high degree of purity. Two years later Dreser[10] reported the isolation of a crystalline alkaloid as a double salt of platinum. He also made the hydrochloride. In 1904 Edmunds[11] employed a highly purified hydrochloride of lobeline, which was prepared by the method of Dreser.[10] His preparation, however, probably contained some of the other alkaloids of Lobelia. Heinrich Wieland isolated three alkaloids besides lobeline[12] and to one of these he gave the name lobelidine. Four years later he[13] established a structural formula for most of these alkaloids. The chemical structure of lobeline is now thought to be[14] as follows:



l-Lobeline *Nicotine*

Because of the similarity of its action with that of nicotine, the formula for nicotine is also given. Both of these drugs have a six-membered ring consisting of five carbons and one nitrogen. This ring is saturated in one case and in the other contains double bonds. Considering this difference and the great dissimilarity of the side-chains, the two compounds would not be expected to have the same pharmacological effects. The actions of these drugs will be discussed later.

Alpha-lobeline is probably the same compound as l-lobeline. It is sold under the name Alpha Lobeline.[14,15,16,17,18] The other alkaloids are weaker but have about the same action as

---

[9] *Amer. Jour. Pharm.*, 1841 (ref. 5).

[10] Dreser: *Arch. f. Exper. Path. u. Pharmak.*, **26**:237, 1890.

[11] Edmunds: *Amer. Jour. Physiol.*, **11**:79, 1904.

[12] Wieland, Heinrich: *Ber. deutsch. chem. Gesell.*, **54**:1784, 1921.

[13] Wieland, Heinrich, et al.: *Ann. d. Chem.*, **444**:40, 1925.

[14] *The Merck Index*, 5th Ed., Rahway, N.J., 1940, p. 323.

[15] Boehringer Sohn: *Brit. Pat.* 145, 621, 1920 (C.A., **14**:3502).

[16] Report of the Council on Pharmacy and Chemistry, *J.A.M.A.*, **100**:1933, 1933.

[17] Wright and Littauer: *J.A.M.A.*, **109**:649, 1937.

[18] *United States Dispensatory*, 22nd Ed., 1937.

lobeline,[11,13,19] although this is denied by some investigators.[20,21] Most writers have assumed that lobeline, or its salts, has the same activity as Alpha-lobeline, and one gains the impression from the total literature that they are correct in their assumption.

Medical History and Pharmacological Actions

Practically every article on Lobelia inflata identifies the drug as Indian tobacco and states that it was used (or said to be used) by the Indians. With little variation the same words are employed by authors from Cutler to the present. The Lloyds[5] suggest that the use of Lobelia syphilitica may have been confused with Lobelia inflata. They quote from nine different investigators who knew and lived with the Indians, and then they conclude, "Only one author, Mattson, in his *American Vegetable Practice*, published in 1841, states, 'There is abundant traditionary evidence that it was used by the Penobscot Indians long before the time of Dr. Samuel Thomson, its reputed discoverer, but with the exception of that tribe I have not been able to discover by any researches I have made that the American aborigines had any knowledge of its properties or virtues.'" This conclusion of the Lloyds is substantiated by the fact that Peter Smith[22] does not mention the drug in his *Indian Doctors Dispensatory* of 1812, so it was probably not much used by the Indians of his acquaintance. Barton in 1902-1904[2] gives a brief account of the drug and lists it as an Indian remedy, but gives little proof for his statements.

Whatever may be the truth about its use by the Indians, it is most probable that the drug had been in some use as a home remedy before Cutler[2,23] first printed a record of its properties. Cutler's own record (quoted later) states that the drug had been used by Doctor Drury and that this use tempted him to try it. It must also be remembered that about this time any plant which would produce symptoms was considered of medicinal value, and it cannot be denied that Lobelia inflata is an active herb.

Schoeph has been given credit[4] as the first medical writer to mention Lobelia inflata, but Reverend Cutler described it before the American Academy of Sciences two years earlier in 1785[5] and named it emetic weed. Apparently Schoeph was not very familiar with the drug, as he incorrectly ascribed astringent properties to it and stated that it was used in ophthalmia. He may have confused Lobelia syphilitica with Lobelia inflata.

Both Eberle[23] and Thacher[3] credit Cutler with the honor of introducing the drug into medicine. They quote him as follows: "'It has been my misfortune to be an asthmatic for about ten years. I have made trial of a great variety of the usual remedies with very little benefit. In several paroxysms I found immediate relief more frequently than from anything else from the skunk-cabbage (Pothos foetidum). The last summer I had the severest attack I ever experienced. It commenced early in August, and continued about eight weeks. Dr. Drury, of Marblehead, also an asthmatic, had made use of a tincture of the Indian tobacco (Lobelia inflata) in a severe paroxysm, early in the spring. It gave him immediate relief, and he has been entirely free from the complaint from that time. I had a tincture made of the fresh plant, and took care to have the spirit fully saturated, which I think is important. In a paroxysm, which, perhaps was as severe as I ever experienced, the difficulty of breathing extreme, and after it continued for a considerable time, I took a tablespoonful. In three or four minutes my breathing was as free as it ever was. In ten minutes I took another spoonful, which occasioned sickness. After ten minutes I took the third, which produced sensible effects on the stomach, and a very little moderate puking and a kind of prickly sensation through the whole system, even to the extremeties of the fingers and toes. The urinary passage was perceptibly affected by producing a smarting sensation in passing urine, which was probably provoked by stimulus upon the bladder. But all these sensations very soon subsided and a vigour seemed to be restored to the constitution which I had not experienced for years. I have not since had a paroxysm, and only a few times some small symptoms of asthma.'" Cutler's was truly a great faith in a remedy with a resultant cure, but most of us would conclude that either the drug or asthma has changed since his time.

However, in this connection it should be noted that in 1903 Dixon and Brodie,[24] after studying the drug in animals, concluded that like nicotine, lobeline has an excitomotor effect on the bronchial muscle resulting in constriction, which, however, soon gives place to dilatation. They also found that if the bronchi were constricted, i.e., by pilocarpine, a small injection would induce instantaneous dilatation for a short time. A second injection would give the same result and resembled the dilatation following vagal excitation after pilocarpine. This effect was in marked contrast to that produced by atropine, where the dilatation is quite prolonged.

More in harmony with our present conception of the action of Lobelia is the description given by Eberle in 1830,[23] part of which he took from *Gigelow's Medical Botany*. "The leaves and capsules are exceedingly acrid; held in the mouth for some time they produce giddiness and pain in the head, with a trembling agitation of the whole body; at length they bring on extreme nausea and vom-

[19] Norris and Weiss: *Jour. Pharmacol. and Exper. Therap.*, **31**:43, 1927.

[20] Wilson and Torrey: *Amer. Jour. Surg.*, **23**:426, 1934.

[21] Wieland, Herman, and Mayer: *Arch f. exper. Path. u. Pharmakol.*, **92**:195, 1922.

[22] Smith: *The Indian Doctors Dispensatory*, 1812; Rep. Ser. No. 2, 1901 of the Lloyd Library.

[23] Eberle: *A Treatis of the Materia Medica and Therapeutics*, 3rd Ed., Philadelphia, 1830.

[24] Dixon and Brodie: *Jour. of Physiol.*, **29**:99, 1903.

iting. The taste resembles that of tartar emetic. As an emetic the Lobelia inflata is extremely active, producing, in strong doses, great relaxation, debility and perspiration. Concomitant with its emetic operation, it sometimes acts on the bowels and produces purging."

Griffith, in 1847,[4] describes the drug in the following words, "When given as an enema, it causes the same symptoms as are produced by a similar use of tobacco. . . . In fact it very closely resembles tobacco in its operation on the system, and much caution should be employed in its use." Earlier Chapman[25] says of the plant, "I suspect it to be harsh in its operation, and certainly, when chewed, very much affects the nervous system by tremors, giddiness, etc., and hence the popular title of Indian tobacco."

The famous Samuel Thomson (sometimes spelled Thompson) took all the credit of the discovery and use of the drug to himself.[5,4,26] From the history of this remarkable but illiterate man one is almost convinced that he did discover the properties of the drug, because he probably never read the works of Cutler. Rather, it is possible that it was Thomson that caused Cutler to be interested in the drug. Thomson in his *New Guide to Health* (Ref. in [5]) claims that Lobelia inflata was a new article wholly unknown to the medical faculty until he made use of it. He also asserts that sometime in early life he discovered a plant which had a singular branch and pods. The taste and operation produced were so remarkable that he could never forget it. He says, "I afterward used to induce other boys to chew it, merely for sport to see them vomit. This plant is what I have called the emetic herb." Because of this pride of discovery it is interesting to note that Thomson was imprisoned in 1809 because of his practices and that one of the charges was murder. A Doctor French[4,5,26] accused that he "did kill and murder said Lovel with Lobelia, a deadly poison." At his trial he was released when some of his witnesses ate the supposed poison with no ill effects. What they ate was later proved to be rosemary root, the state's witnesses being quite unfamiliar with Lobelia.

In 1887,[27] Doctor Hale considered the action of Lobelia inflata to be midway between tobacco and veratrum, or their active principles nicotine and veratrine. He says, "It acts upon the motor-nervous system and upon the respiratory center in the medulla. The nauseous effects of this drug are far more intense than tobacco." About this same time Professor Bartholow[28] described a curare-like action of Lobelia on the frog nerve-muscle preparation. His words are, "It follows hence that lobeline destroys the excitability of the motor nerve endings and does not impair the contractility of muscle." He also observed that the vagus was first stimulated and then completely paralyzed by the drug, and that larger doses paralyzed the respiration. It will be remembered from the discussion of the chemistry of Lobelia that two years later Dreser[10] isolated a nearly pure alkaloid and described its stimulating effect both on the respiratory and vomiting centers.

Langley and Dickinson[29] published a paper in 1900 after a careful study of the drug in which they place it in the same pharmacological group as nicotine. This was followed three years later by the work of Dixon and Brodie[24] in which an attempt was made to correlate the action of Lobelia on the bronchi with its use in asthma. They concluded that some relaxation of the bronchial muscles could be secured by means of the drug, especially if they were partially constricted. This relaxation was, however, rather brief and not to be compared to that obtained by atropine.

In 1904 Edmunds[11] published his now classical study of lobeline. He found that, like nicotine, it had a marked effect upon the autonomic ganglia and an almost equally important effect upon the central nervous system. Also that it had a less noticeable effect on the motor nerve endings (myoneural junctions) and an action directly on the heart muscle. The action in each case was in general a stimulation followed by depression. During the stage of stimulation he found an increased flow of saliva, dilation of the pupils, constriction of blood vessels, slowing of the pulse and other evidences of autonomic excitation. The slowing of the pulse at first more than counter-balanced the vascular constriction, and the blood pressure was usually lowered, but later the pulse became rapid and the blood pressure high. In the depressant stage of poisoning the pupil was contracted, salivary secretion checked, respirations slowed and the blood pressure much reduced. The superior cervical, the vagus and the renal ganglia were more readily paralyzed than the inferior cervical and mesenteric ganglia. The effect on the central nervous system is well illustrated when his preparation (lobeline)was given to frogs. Here it caused some excitation followed by depression, with lack of muscular coördination, followed by a total loss of the reflexes and also a paralysis due to a curare-like action on the motor terminations of the nerves to striated muscle. The action on the heart counteracted the effect of pilocarpine but in large doses depressed, weakened and slowed the contractions. He also showed that the "drug is a powerful respiratory stimulant in small doses, and in large quantities causes death by paralyzing the respiratory center." In his kymograph experiments alternate injections of lobeline and nicotine "gave curves which would be impossible to distinguish from one

[25] Chapman: *Elements of Therapeutics and Materia Medica*, **1**:192, 1823.

[26] Wilder: *History of Medicine*, Eclectic Publishing Co., New Sharon, Maine, 1901.

[27] Hale: *Drugs and Medicines of North America*, **2**:93, 1887.

[28] Bartholow: *Ibid.*, **2**:89, 1887.

[29] Langley and Dickinson: *Jour. of Physiol.*, **11**:265, 1890.

another." He concluded, "There is, therefore, very little difference between the two drugs in their effect upon respiration, the changes caused by them probably differing more in degree than in kind." This work of Edmunds can be considered as clearly revealing the true character of the drug, but it cannot be taken as a recommendation for extensive clinical use.

Thus it was not until the publications of Herman Wieland in 1915[30] and in 1922[21] that clinical interest was again directed toward Lobelia with particular interest in crystalline lobeline. He claimed that respiratory depression caused by urethane, morphine or chloral hydrate could be relieved by Alpha-lobeline. He also pointed out that when given intravenously there was usually a fall in blood pressure, and he recommended intramuscular injections unless the circulation was too impaired for absorption. His most important statement was that Alpha-lobeline did not possess the emetic action which is so characteristic of the amorphous alkaloids of Lobelia.

Shortly after these papers a number of clinical reports appeared, mostly in German, praising the drug as an excellent analeptic. (See ref. in papers cited.) But as the use of Alpha-lobeline spread many workers did not experience such excellent results and several papers were published which either criticized or pointed out pitfalls in its use.

In 1926, Curtis and Wright[31] re-investigated the pharmacology of lobeline and in general confirmed the work of Edmunds.[11] They found that it was a powerful respiratory stimulant in mild depression, but relatively ineffective in severe depression, also that the doses which were necessary had widespread effects on other systems, resembling in many respects those of nicotine. In their hands purified lobeline produced vomiting the same as the crude extracts, but they found that the threshold of the vomiting center was approximately four times as high as that of the respiratory center. They also showed that a detrimental effect on the heart could be produced which was more damaging than the emetic action, and they suggested that lobeline might well be combined with a circulatory stimulant. They thought that lobeline was worthy of a more extensive clinical trial, so long as the dangers inherent in the drug were borne in mind.

In the same year Guns,[32] after an extensive investigation, stated that weak doses of lobeline produced good stimulation of the respiratory center while strong doses were often followed by paralysis of the same center, and by convulsions. He also stated that he observed good stimulation if the depression was caused by morphine or heroin, but that stimulation was almost absent if the depression was due to chloroform or ether. He concluded that lobeline was a powerful agent, unique in action, but that it was a double-edged weapon and required much skill on the part of the physician.

A year later Norris and Weiss[19] came to the conclusion that the pharmacological properties of Alpha-lobeline were essentially the same as those of the amorphous impure alkaloids; that the drug was capable of stimulating several of the medullary centers and that the drug acted similarly to nicotine. They also observed that the drug failed to produce respiratory stimulation if depression was deep, and that carbon dioxide was more efficient and much safer. In their experiments the dose which produced stimulation in slightly depressed or normal animals often produced further depression or even death in animals which were deeply narcotized.

Whitehead and Elliot[33] in the same year used the electrocardiograph to study the effect of lobeline on the heart. Their protocols indicated increased irritability followed by depression of the heart muscle, with the auricles more susceptible than the ventricles. Although their work was primarily on the heart, they made the following statement concerning the respiratory effect of the drug: "First the rate and amplitude of respiration were increased in normal animals after injection of the drug. However, after respiration had stopped completely, from one cause or another, Alpha-lobeline did not restore the normal rate or even stimulate attempts at respiration."

Wilson in 1928[34] presented clinical evidence that in certain cases of asphyxia neonatorum Alpha-lobeline injected into the umbilical vein was lifesaving. He reported no serious side-or after-effects, and that his babies were normal in all respects. His pharmacological data and detailed references are rather scant, but his conclusions are most optimistic. In the same year King, Hosmer and Dresbach[35] studied the actions of the drug in rabbit, cat, dog, monkey and man. They again found that respiration could be markedly increased in light and moderate anesthesia, but in deeply depressed animals this stimulation was likely to be slight or to fail altogether. Failure of stimulation was accompanied by a fall in arterial pressure. They state that the stimulating action of lobeline is antagonized by most depressants.

Wilson and Torrey[36] about six years later decided to re-study the effects of the drug, using a special method of measuring respiration. They came to the conclusion that Alpha-lobeline was not as emetic as the impure alkaloids and reported no vomiting or undesirable side effects. They claimed that the drug was an excellent respiratory stimulant. However, apnea occurred in one of their experiments, and they caution against the use of too large doses.

[30] Wieland, Herman: *Arch. f. exp. Path. u. Pharmak.*, **79**:95, 1915.

[31] Curtis and Wright: *The Lancet*, **2**:1255, 1926.

[32] Guns: *Arch. internat. de pharmacodyn. et de therap.*, **32**:173, 1926.

[33] Whitehead and Elliot: *Jour. Pharmacol. and Exper. Therap.*, **31**:145, 1927.

[34] Wilson: *Amer. Jour. Obst. and Gynec.*, **16**:379, 1928.

[35] King, Hosmer and Dresbach: *Jour. Pharmacol. and Exper. Therap.*, **32**:241, 1928.

[36] Wilson and Torrey: *Amer. Jour. Surg.*, **23**:426, 1934.

In 1937 Wright and Littauer,[17] acting on the suggestion of Dorsey,[37] tried the use of Lobelia for controlling the tobacco habit. They confirmed its nicotine-like action, even to the elevation of blood sugar, but concluded that it was not satisfactory as a "cure" for the use of tobacco.

In a discussion of methods of resuscitation in the newborn, Kressler[38] in 1940 states that intravenous lobeline was the best drug available, but he felt that other methods, such as carbon dioxide and oxygen, were superior.

Eastman and Kreiselman[39] recently studied the effects of Alpha-lobeline, metrazol and coramine on experimentally-produced apnea in dogs. The apnea was produced by rebreathing inert gases containing five per cent carbon dioxide. They concluded, after giving due consideration to the hazards of carrying over conclusions drawn from animal experimentation to clinical therapy, that these drugs were of little or no value if severe anoxia were present. Their own words are, "It would seem clear that Alpha-lobeline, Metrazol and Coramine have no place in the treatment of apnea at birth because their effects on respiration are nil in the presence of anoxia; as we have shown, the severe forms of apnea neonatorum are regularly associated with anoxia."

The present status of Lobelia and its active constituent lobeline in medicine is well summarized by a 1933 report[16] of the Council on Pharmacy and Chemistry of the American Medical Association. Although this report was written nine years ago, the foregoing review of the literature shows that the same situation obtains now as then. This report is in essence as follows: In 1927 and again in 1932 the manufacturers submitted the drug to the council, along with 108 pieces of advertising. Much of the work on which these were based was misinterpreted and made to fit the claims of the company. In addition, many of the claims for it were felt to be dangerous. Medical literature did not substantiate the claims of the company with the exception of the possible use in the treatment of asphyxia neonatorum by injection into the umbilical vein as described by Wilson. "The council declared Alpha-lobeline unacceptable for new and non-official remedies," because the drug had not been proved to be better than carbon dioxide in oxygen for respiratory stimulation; because it may be dangerous, and because it was marketed with unwarranted therapeutic claims.

[37] Dorsey: *Ann. Int. Med.*, **10**:628, 1936.
[38] Kressler: *Penn. Med. Jour.*, **43**:1411, 1940.
[39] Eastman and Kreiselman: *Amer. Jour. of Obst. and Gynec.*, **41**:260, 1941.

ABSTRACTS

DRUGSTORES AS FIRST AID STATIONS IN FIGHT AGAINST VENEREAL DISEASE

"Philadelphia pharmacists, in a statement signed by several Pennsylvania physicians and pharmaceutic leaders, are being urged, in effect, to utilize their stores as prophylactic stations against venereal disease," *The Journal of the American Medical Association* says in its June 6 issue. "The drugstore is often the social center of a neighborhood. It is suggested that the socially-minded head and personnel of such establishments can '(*a*) discourage off-color frequenters looking for pick-ups and trouble; (*b*) give friendly advice and even sober counsel to some who are obviously on the way to going wrong; (*c*) urge blood tests and medical examination on persons who are known to have exposed themselves.' The pharmacist is an educator, and the corner druggist's establishment can be as much of a center for public health as a physician's office, hospital or the health department in the city hall. The pharmacist behind the counter has the first chance to give or sell prevention to persons who may expose themselves to venereal disease, to give or sell prevention to persons who have been exposed already, and 'to sell the basic idea of a prompt accurate diagnosis and immediate treatment' to persons who describe a symptom or ask for treatment, attempt to purchase a proprietary remedy, tell a story that shows they are taking risks that they do not realize, or that they have consulted a quack. The pharmacist is urged to place the facts and aims of venereal disease control before the public, and the state pharmaceutic association is prepared to supply a card or posters for counter display and booklets for distribution to inquirers."

USE OF SACCHARIN FOR SWEETENING

"Sugar rationing and new emphasis on weight reduction have doubtless increased the use of saccharin for sweetening purposes," *The Journal of the American Medical Association* for July 25 says. "Renewed interest in the possible harmful effect of this substance is an apparent corollary. Earlier investigations of saccharin, however, have failed to reveal dangerous side-actions except from extremely large doses. Likewise the evidence does not reveal any reason why saccharin cannot be used continuously in average sweetening doses for an indefinite period. Many patients have taken saccharin for years without harmful effect."

INFLUENCE OF 'SODIUM AMYTAL' ON INTELLIGENCE

During air raids on London various sedatives were tried on anxious patients, not only therapeutically but prophylactically, to reduce apprehension and induce a state of relative mental calm. In order to determine the degree of mental impairment and the capacity to react reasonably to an emergency, Slater et al (Lancet, 1:676, June 6, 1942) measured the effect of 'Sodium Amytal' (Sodium Iso-amyl Ethyl Barbiturate) by means of standard intelligence tests which were performed on nearly four hundred cases. It was concluded that doses of 3 grains or less did not impair the functioning of the patient's intelligence to any important extent. The drug must be prescribed, nevertheless, with individual susceptibilities and requirements in mind. Doses of 1 grain to 3 grains were most generally useful.

INFECTIOUS MONONUCLEOSIS

H. H. ASH, M.D.
J. L. ARBOGAST, M.D.
LAFAYETTE, INDIANA

During the past few years there has developed an increased interest and a keener appreciation of the clinical course of infectious mononucleosis in Indiana. This is particularly true since the development of the diagnostic sheep cell test in 1932.[1] Included in this report are twenty-one cases occurring in 1940 and 1941 in the Lafayette Home Hospital. There were twenty-five individual cases treated by fourteen physicians. Of these four were omitted because of questionable diagnosis and incomplete data. The salient features of each are noted in the table below.

HISTORICAL

Emil Pfeiffer is credited with describing this disease in 1889.[2] He failed to recognize that general glandular enlargement may occur. It is difficult to credit glandular enlargement and fever, since these are associated with a variety of conditions. Infectious mononucleosis is probably a better name than glandular fever, but neither glandular enlargement nor fever are essential, while increase in the mononuclear blood cells is always present at some time during the course of this probably infectious disease. West,[3] in 1896, first described infectious mononucleosis in the American literature. Gourichon[4] noted a mild leukocytosis. Burns[5] noted the change in the differential—"The small mononuclear elements of the blood seem to be the ones principally increased. After convalescence there seems to be a still greater relative increase in the small mononuclear elements of the blood."

INFECTIOUS MONONUCLEOSIS

Name	Age	Sex	Month	Initial symptom	Glands noted and day on which noted	Peak of fever	Duration in days	Associated diseases	Malaise	Irritability	Fatigue and prostration	Sore throat	Neck pain	Abd. pain & GI upset	Headache	Conjunctivitis	Splenomegaly	Earliest change	Peak WBC	Lowest neutropenia %	Greatest mononuclear %	Time of peak mono count	Sheep cell titer
BS	8	F	11	dyspnea	7 cerv.	104	15	tonsillar & nasal obstr.	2	0	2	3	0	0	0	1	0	7	27,000	18	80	14	not done
DB	19	M	10	headache	7 max.	102	2	nasal obstr.	1	0	1	3	0	0	2	2	0	1	11,000	20	80	8	64
MD	18	F	12	aching	6 gen.	106	10	0	3	0	3	1	2	0	0	2	0		12,250	26	64	14	256
RJ	18	M	10	headache	6 max. cerv.	102	3	0	0	0	0	1	0	0	0	1	0	3	5,800	27	63	3	16
DT	17	F	7	sore throat	6 cerv.	101	3	Vinc.	0	0	0	3	1	0	1	0	0	7	13,600	22	78	10	not done
MS	18	F	10	sore throat, joint pain.	4 cerv. max.	102	7	0	1	0	1	2	2	0	0	0	0	6	5,000	31	69	6	not done
LG	18	F	11	sore throat	4 max.	102	8	nasal cong.	1	0	0	3	0	0	0	0	0	4	10,700	18	81	4	80
DG	21	F	9	sore throat	30 cerv.	none		0	3	0	0	1	1	0	0	0	0		12,000	31	67	30	1,024
AJ	21	M	10	sore throat	2 cerv.	100	1	0	1	0	1	2	1	0	0	0	0	3	14,900	21	77	7	512
SW	20	M	9	sore throat	7 cerv.	103	1	0	1	0	0	2	1	0	3	0	0	8	5,100	28	67	8	4
BM	19	F	7	sore throat	4 cerv.	101	2	Vinc.	1	0	0	3	2	0	0	0	0	4	8,400	34	66	4	640
HS	20	M	5	sore throat	7 cerv.	105	4	0	2	0	1	1	0	0	1	0	0	7	23,000	34	65	7	128
LH	45	F	3	malaise	0	101	2	teeth extr.	3	1	2	0	0	0	1	2	1	14	13,950	14	86	29	512
NG	24	M	3	sore throat	2 cerv.	102	7	0	1	0	1	2	1	0	2	0	1	2	13,700	22	78	9	4,096
BO	22	M	3	sore throat	cerv.	103	12	0	2	0	2	1	2	0	2	0	0	5	5,100	37	55	5	640
*JH	21	M	10	Headache	7 cerv.	103	7	0	2	1	2	0	0	2	3	1	0	11	13,200	17	82	14	128
FJ	38	M	8	gen. mal.	5 max.	103	4	0	1	0	1	1	0	3	1	1	0	5	7,500	30	70	15	not done
*JK	23	M	4	fever	none	104	4	0	2	0	2	1	0	0	1	0	0	4	5,800	48	52	5	not done
CC	21	M	4	headache	5 cerv.	103	7	0	2	0	2	0	0	2	0	0	0	6	14,250	16	84	6	not done
MC	21	M	5	gen. mal.	1 cerv.	105	14	bronchitis	2	0	1	1	0	0	0	1	0	4	12,750	38	62	12	not done
LH	21	M	2	malaise glands	5 gen.	105	7	0	2	0	1	1	0	0	0	0	0	3	9,600	24	75	4	not done

*Had symptoms referable to central nervous system.

[1] Paul, J. R., and Bunnell, W. W.: The Presence of Heterophile Antibodies in Infectious Mononucleosis, *Am. J. M. Sc.* **183**:90, 1932.

[2] Pfeiffer, E.: Drusenfieber, *Jahr. f. Kinderh.*, **29**:257, 1889.

[3] West, J. P.: An Epidemic of Glandular Fever, *Arch. Pediat.* **13**:889, 1896.

[4] Gourichon, J.: Essai sur la fievre ganglionnaire, These. Paris, 1895.

[5] Burns, J. E.: Glandular Fever Report of an Epidemic in the Children's Ward of the Union Protestant Infirmary, *Arch. Int. Med.* **4**:118, 1909.

Investigation of the blood cells produce some confusion with blood diseases, particularly leukemia. Paul and Bunnel,[1] studying non-specific serological reactions in a variety of clinical conditions, observed that the serum of these patients contained antibodies against sheep cells which caused clumping in far above the normal titer.

DISCUSSION

In the twenty-one cases studied, the age extremes are eight and thirty-eight years, while both the average and the mean age are twenty-one years. Thirteen males and eight females are represented. The location, near a university which is primarily a male engineering school, may well distort the age and sex incidence, yet we confirm the predominance among males found by other authors. Sixteen university students were included, of whom eleven were males. Glanzmann's series of 160 cases,[6] Nyfeldt's[7] of 33 cases, and Bernstein's monograph,[8] found males more commonly affected in the ratio 3:2. "Epidemics have been observed in colleges, schools, foundling homes, children's hospital wards, military and naval bases, and in general communities. Probably there are no important differences between the epidemic and sporadic forms of the disease. Epidemics tend to occur in spring and fall."[8] This series showed a distribution of nine in the fall, two in the winter, seven in the spring, and three in the summer. We were unable to secure worth-while data relative to incubation period, contagiousness, or relapse. The clinical picture presents extraordinary variations. The course may be so mild that cases are overlooked, or it may be very severe with high fever for many weeks, possible relapse, and morbidity for months. It may appear as follicular tonsillitis, meningitis, or even as acute leukemia. It is this variety that makes discussion of symptomatology difficult. The initial symptoms in our series were the vague constitutional manifestations described by others. There also were included ten with sore throat, seven with malaise, one with glandular enlargement of a general nature, and three with headache. The onset was gradual in all cases excepting only one which had generalized aching and sudden malaise. Hospital admission was usually delayed, so that glandular enlargement was first noted as early as two days and as late as seven days, the average being five days, and the enlargement moderate. The anterior cervical lymph nodes were involved in twenty cases, the submaxillary in six, generalized in two, and none at all in one. Fever was present in twenty cases, usually reaching a peak of 103 or 104°, the extremes running from normal to 106°. The average duration was six days, the extremes one to twelve days. Chills were present in fifteen cases. The pulse ran parallel to the temperature.

Associated disease included tonsillitis 1, Vincent's 2, nasal obstruction and congestion 3, bronchitis 1, and extracted teeth 1. These conditions are so intimately associated that some authors consider them as a part of the disease. The earliest blood change in the total or differential WBC was noted as early as one day, as late as fourteen days, the average being five days. The extremes of total WBC were 5,000 to 27,000, the average 11,200. The extremes usually noted early of neutrophilia were 14 per cent and 55 per cent, the average being 27 per cent. Eosinophiles were noted in only five cases. Mononuclear cells varied from 37 to 86 per cent, averaging 70 per cent. These were noted as early as three days after onset, to as late as thirty days. The average for mononuclear change of definite recognizable degree was ten days. Cells were considered to be abnormal lymphocytes. Kline and Mazzini tests for syphilis were negative in all. The heterophile agglutination test for sheep cells[1] was not done in eight of the included but typical cases. In the other thirteen the titer at the time of the test varied from 1:4 to 1:4096, the average being 1:770. In this series of cases we had the impression that the appearance of the positive sheep cell test is sometimes delayed, indicating that if the clinical impression is definite and the test negative the sheep cell test should be repeated later. One case was followed for three months with a diagnostic positive titer during that time.

The extraordinary variety in the clinical picture has led to arbitrary classifications for the clinical types. Tidy[9] gives three forms, and Bernstein[8] gives a detailed discussion of each symptom. In this series there were seventeen with sore throat, seventeen with malaise, fifteen with fatigue and prostration of which five were quite marked, ten with neck pain and dysphagia, ten with headache, ten with conjunctivitis, three with recognized mild splenomegaly, three with painful joints, two with symptoms referable to the nervous system, (neck pain, and pleocytosis of the spinal fluid) two with marked irritability, two with gastric upset or abdominal pain, and one with a generalized macular eruption (no sulfonamides used).

Involvement of salivary glands, herpes labialis, cardiac involvement, hepatomegalia, jaundice, nephritis, or epistaxis were not observed in this series.

With few exceptions authors have considered mononucleosis infectious, whose many possible presenting features were secondary to a primary systemic disorder. The opinion of the majority is that the infectious agent has become localized in the lymph nodes, the enlargement being pro-

[6] Glanzmann, E.: Das lymphaemoide Drusenfieber, Berlin, 1930.

[7] Nyfeldt, A.: Klinicshe und experimentelle Untersuchungen uber die Mononucleosis infectiosa, *Folia haemat.* **47**:1, 1932.

[8] Bernstein: Infectious Mononucleosis, *Medicine* Vol. **19**, 1940.

[9] Tidy H. L.: Glandular Fever and Infectious Mononucleosis, *Lancet*, **2**:180-236, 1934.

tective in nature. Cultures and inoculations have proved disappointing. The incubation period is probably about eleven days. There seems to be no specific therapy for infectious mononucleosis. Isolation is debatable, except during epidemics, and common sense must guide convalescence. Unless protracted or debilitating, fever, glandular enlargement, or abnormal leukocytic counts do not contraindicate resumption of modified activity.

SUMMARY

A series of twenty-one cases of infectious mononucleosis, occurring within a two-year period in this hospital, located near a large university, is reported. The commonest clinical features are sore throat, malaise, adenitis, and fatigue. Leukocyte changes were characteristic in all cases, the diagnosis being confirmed in fifteen by the Paul-Bunnel sheep cell test. The salient features are those described by other authors. In this review only three mild splenomegalies were noted, and there was a tendency for the diagnostic sheep cell titer to be delayed in appearance. The importance of conjunctivitis as a symptom is stressed. The association with Vincent's appears interesting.

(Acknowledgment is due Drs. Martin, Cole, Frasch, Buhrmester, Cox, McKinney, Trout, Coyner, Flack, Bayley, Pike, and Calvert for permission to study and report their cases.)

CAUDAL BLOCK ANESTHESIA IN OBSTETRICS*

S. A. MANALAN, M.D.†
INDIANAPOLIS

A new technic to obtain caudal anesthesia has been devised in an effort to render the procedure more suitable to obstetrics. The technic is as follows:

When labor has been well established and the patient has received her analgesia, she is turned on her side or asked to assume the knee-chest position. The skin overlying the sacral hiatus is prepared with green soap, alcohol, and tincture of merthiolate. The skin and subcutaneous tissue overlying the hiatus are anesthetized with 1 per cent novocain solution. Sterile rubber gloves are used by the operator. A small incision in the skin is then made with a No. 11 Bard-Parker blade. A 14 gauge 3½ inch needle is inserted through the sacral hiatus just entering the sacral canal. A No. 4 Nylon ureteral catheter is passed through the lumen of the needle and traverses the sacral canal until it is stopped by the dura. (See Figure A.) The needle is withdrawn and the catheter left in place. (See Figure B and C.) The visible portion of the catheter is enclosed in sterile gauze wrapping and bandaged securely to the back. The patient continues in labor and receives the routine analgesia. When caudal anesthesia is desired 30 cc. of 1 per cent novocain solution with 3 to 4 minims of adrenalin solution (1 to 1000) is injected through the catheter. A 30 cc. syringe with a 23 gauge 1½ inch needle is used in this latter procedure. Immediately following the injection the catheter is withdrawn, a sterile dressing applied to the skin wound, and the patient kept in the supine position until the anesthesia is noted.

The procedure as outlined was used on forty-six ward obstetric patients at the William H. Coleman Hospital for Women from August 13, 1940, to November 15, 1941. There were several changes made in the technic during this period. Nylon catheters were substituted for the silk catheter because they could be more adequately sterilized. A small skin incision prior to the passage of the needle was in-

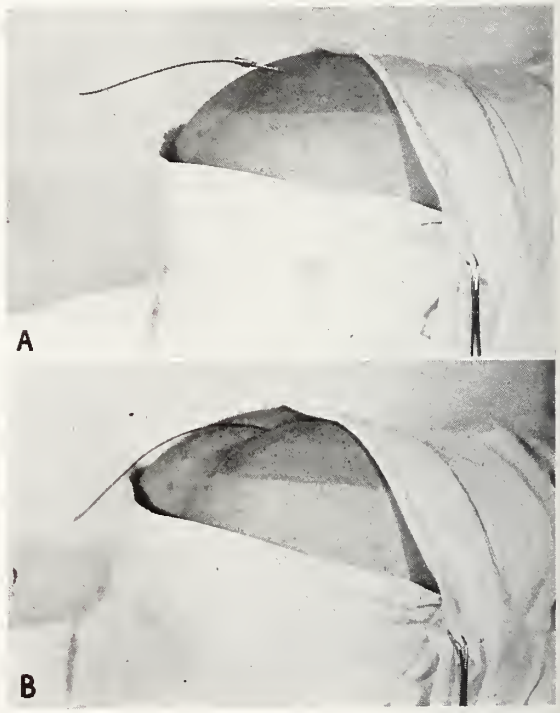


Figure. A.
Catheter passed through needle and into the sacral canal.

Figure B.
The same as A after the needle has been withdrawn.

* A preliminary report of this work was presented before the Central Association of Obstetricians and Gynecologists, October 10-13, 1940, Indianapolis, Indiana.

† From the Department of Obstetrics, Indiana University School of Medicine.

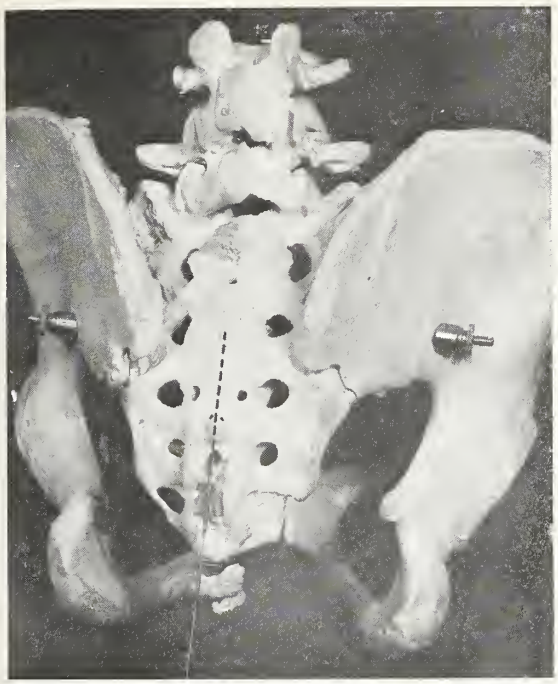


Figure C.
Ureteral Catheter in the sacral canal.

stituted later in the series in an effort to minimize the danger of carrying the bacteria of the skin into the sacral canal.

The data obtained from this series of patients is summarized in the following paragraphs:

Parity—Forty primiparas, 6 multiparas (5 para ii, 1 para iii).

Length of time catheter was left anchored—This varied from fifteen minutes to eighteen hours. The average time was approximately three hours.

Time required for anesthesia to become effective—This averaged from ten to fifteen minutes. The frequency and severity of the uterine contractions diminished markedly in four to six minutes.

Type of delivery—Thirty-eight primiparas were delivered by episiotomy and low forceps. Two primiparas were delivered by episiotomy, low midforceps, and rotation. Six multiparae were delivered by outlet forceps.

Complications—There were no postpartum hemorrhages or retained placentae. The patients received 1 cc. of obstetrical pituitrin following the delivery of the infant and 1 cc. of ergotrate following the third stage of labor.

Duration of anesthesia—From forty-five minutes to one hour.

Percentage of successful cases—Forty-four cases had good anesthesia. Two cases had only fair anesthesia but no supplementary anesthesia was necessary. Two cases were attempted that are not included in this series because we were unable to enter the sacral canal.

Mortality—There was no maternal mortality. The fetal mortality was one. The infant died during labor, two hours after the catheter was anchored. An autopsy was performed but the cause of death was undetermined.

Morbidity—The percentage was the same as those cases delivered under general anesthesia during the same period of time. There was a noticeable reduction in the temperature readings during the first twenty-four hours postpartum. One mother developed a staphylococcus meningitis during her puerperium. Symptoms of malaise, headache, and hyperirritability were noted on the third postpartum day. She recovered completely following a critical illness. A silk catheter was used in this case and the incision of the skin was not made. Repeated sacral canal aspirations did not reveal any local infection. This complication was thought to be due to the caudal block but was never proved.

Local discomfort—Ten of these cases complained of a burning sensation and slight discomfort over the sacral region during the first twenty-four hours postpartum. None of the cases revealed any infection about the site of the skin wound.

ADVANTAGES OFFERED BY NEW TECHNIC

The advantages this technic offers over the standard caudal block procedure in obstetrics are as follows:

Increased accuracy—The passage of the catheter beyond the end of the needle proves that it is in the sacral canal. There is no definite manner to determine this with the needle alone. The haste which is sometimes necessary to obtain caudal anesthesia with the standard procedure tends to impair the efficiency of the operator.

Time of procedure—The time to perform this procedure can be determined within reasonable limits by the operator. This allows for increased co-operation from the patient. In some cases where the standard procedure is used and difficulty in entering the canal is encountered, the perineal stage may be prolonged and thereby increase the danger of fetal complications.

Danger of piercing the dura—The danger of the needle piercing the dura is eliminated since only the catheter traverses the sacral canal.

Pain—The sacral canal is traversed by a flexible object, thus preventing trauma and minimizing pain.

Curve of the canal—If the curve of the sacral canal is exaggerated, the catheter can be passed higher than the needle.

SUMMARY

A new technic to obtain caudal anesthesia has been devised and its use in obstetrics described. This technic was used on forty-six cases and the results noted. The advantages which this technic offers are outlined.

(I wish to express my gratitude to Drs. Carl P. Huber and H. F. Beckman for their helpful co-operation, timely advice, and suggestions during the course of this study.)

MULTIPLE SUBCORTICAL CLOTS WITH CEREBRAL MELANOMATA

(A Case Report)

ROLAND M. KLEMME, M.D.*
R. DEAN WOOLSEY, M.D.*
SAINT LOUIS, MISSOURI

Recently we have become interested in the surgical aspects of intracranial vascular accidents. We are convinced that the age old diagnosis of apoplexy is no longer sufficient if a patient is to be given the full benefit of all that modern medicine can offer. In other communications we have reported eight patients with spontaneous subcortical hemorrhage of the brain on whom operations were performed successfully. There was one postoperative death in this group of eight cases. The other seven patients are alive and well to this date. At the present time we wish to report our ninth case of spontaneous nontraumatic intracerebral hemorrhage with clot formation. This patient expired after suffering from three intracranial vascular accidents, the first two of which were evacuated successfully by operative means, and the third of which was diagnosed and removed with subsequent death of the patient. Incidental findings at autopsy were numerous nodules of metastatic melanomata.

Case History: H. W., forty-three-year-old man, admitted to the hospital in St. Louis, Missouri, on October 21, 1941, with a chief complaint of paralysis of the left side of his body of four days' duration. Four days prior to admission to the hospital this man had been carrying out his duties as sheriff. Shortly after officiating at a dispute between a man and wife he noticed a slight weakness of his left leg. This was accompanied by numbness in the leg. Two days later this weakness and numbness had spread to the left arm, beginning at the shoulder, then spreading to the forearm and hand. Finally, on the day before admission to the hospital he could move only the index finger of the left hand and had complete paralysis of the left side of the body. His family next noticed slurring of speech and drooping of the left side of his face. He had been quite alert mentally until the date of hospital admission when he had become stuporous.

Family History: Father and brother both died of cerebral hemorrhages.

Past History: Four years before hospital admission patient's family physician removed a large "mole" from patient's low back region.

Physical and Neurological Examination: A well developed, 225-pound male, 43 years of age, with a spastic paralysis on the left side of his body. Blood pressure 140/90. Patient was somewhat stuporous. Eye grounds appeared normal. There was a left facial weakness, central in type. The tongue protruded to the left. There were hyperactive reflexes on the left side. Abdominal reflexes were absent on the left. There was a Babinski and clonus on the left. There was an old well-healed scar over the left lumbar area of the back. Blood count was normal. There was a slight trace of albumin in the urine. The day after admission to the hospital the patient became more and more stuporous. Temperature was 100, pulse 85, respiration 22. It was thought that the patient probably had a clot in his right motor area; accordingly, operation was decided upon.

Operative note: October 24, 1941. Ventriculogram was done through the left posterior horn. Air plates (see Figures I and II) showed a large filling defect over the right lateral ventricle in the parietal region. The patient was returned to the operating room and a right parietal flap was turned down in the usual manner. The dura was opened with the base toward the longitudinal sinus. Convolutions over the sagittal plane and the upper edge of the motor cortex were definitely widened. Ventricle needle was inserted and a large subcortical clot and hemorrhage was encountered. The cortex was incised for a distance of about one inch, and all of the old blood was permitted to escape. The wound was revised, old blood sucked out, and all bleeding points coagulated. The wound was perfectly dry. Dura was replaced and closed



Fig. I.—Ventriculogram. Anteroposterior view, right lateral ventricle depressed and pushed to the left.

* From the Neurosurgical Service of Roland M. Klemme, M.D., Professor and Chairman, Section of Neurosurgery, St. Louis University.

with silk; flap was replaced and wound closed with silk, both the galea and the skin; and silver foil and gauze dressing were applied. Wassermann done on the ventricular fluid was negative.

Postoperatively the patient did very well, leaving the hospital on November 5, 1941, on the twelfth hospital day. At this time he was able to use his left leg in walking. He was readmitted to the hospital three weeks later, on November 26, 1941, with a history of having had slight twitching of the left arm and hand three days before admission to the hospital. He vomited occasionally, and it was thought by the family that the patient was jaundiced. His temperature on admission was 103, pulse 110, respiration 24, and blood pressure 150/92. Physical examination showed the craniotomy scar on the right well healed. There was still partial paralysis of the left arm and leg, although he moved both of these extremities much better than when he left the hospital. Laboratory findings were noncontributory. The patient's temperature dropped gradually over a period of three

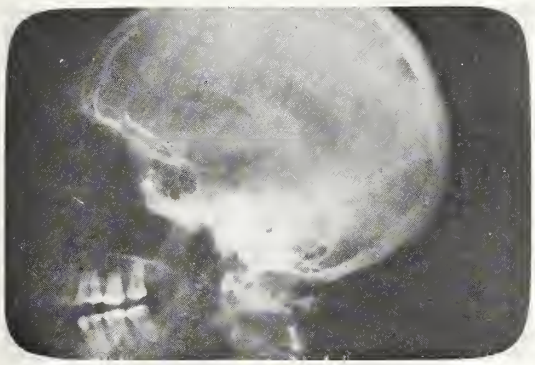


Fig. II.—Ventriculogram. Right lateral view, localizing lesion to the right parietal area.

days, and he was discharged from the hospital. He was again seen in the office on January 24, 1942, at which time his family stated that he had had several convulsions on the left side of his body. On February 27, 1942, he was again admitted to the hospital, having recently had several convulsions of the left side of the body, and at this time he was again completely paralyzed on the left side after having recovered almost complete function of the left arm and leg. Physical examination showed temperature 99.8, pulse 104, respiration 22, and blood pressure 126/94. There were hyperactive reflexes on the left. The eyegrounds were normal. There was a Babinski and clonus on the left side. Laboratory findings were noncontributory. The clotting time was five minutes. It was felt that he probably had a recurrence of his hemorrhage on the right side.

Second Operation: Accordingly, on January 29, 1942, under avertin and local anesthesia, a ventriculogram was done through the old air-injection opening. Entire ventricular system was again found to be pushed over to the left. Patient was returned to the operating room, the old wound was reopened, flap turned down in the usual manner, and dura opened. No adhesions were found. The old wound in the cortex was reopened but was clean and free of clot formation or hemorrhage. A needle was inserted down close to the falx and a large subcortical clot, about the size of the previous one, was found and evacuated. All bleeding points were coagulated. The wound was perfectly dry and closed tightly, silk being used for the dura, the galea, and the skin. One stab drain was inserted, and silver foil and gauze dressing applied.

Postoperatively, he seemed to do fairly well. His temperature was 102, coming down to normal on the third day. He was up in a chair on the tenth postoperative day, but on February 13, 1942, his fifteenth postoperative day, he began to lose the use of his right arm and leg, became unable to talk and began to have convulsions on the right side of his body. This continued for two days. Temperature was normal, pulse was normal, and blood pressure was 140/90.

Third Operation: On February 16, 1942, he was again taken to the operating room. A perforator opening was made over the left motor area. A ventricular needle was inserted and about 30 cc. of old blood was allowed to escape. A drain was left in the wound. Patient's temperature gradually rose to 107°, and he expired on February 14, 1942.

Autopsy permission was granted for the head only (Figure III). The autopsy report follows in detail:

Macroscopic. Head: There is a partially healed craniotomy flap present on the right side and some trephine openings on the left side. A moderate amount of clotted blood is present between the dura and the calvarium. There is an unhealed



Fig. III.—Brain at autopsy, showing nodules of melanomata over left cerebral hemisphere.

defect at the site of the craniotomy flap on the right side. On the left side over the surface of the occipital lobe there are several sharply circumscribed, deep reddish-black areas which average about 1.0 centimeter in size and do not exceed 2.0 centimeters. These are slightly raised above the surface of the surrounding convolutions, are covered by pia-arachnoid which can be distinctly seen with capillaries intact over the lesions. On section these lesions are found to be button-like in outline, soft, friable, apparently lobulated, and the cut surface tends to bulge and break up. They are deep brownish-black in color after formalin fixation. On the left side at about the level of the junction of the frontal with the temporal lobe there is a larger mass similar in character which measures about 3.0 centimeters in diameter. It is dirty grayish-black in color. A hematoma which surrounds this lesion extends down into the substance of the brain as far as the corpus striatum. There are petechial hemorrhages in the immediate vicinity of it. Just below this is a large cyst-like excavation about 5.0 centimeters in diameter, irregularly triangular in outline and partially filled with soft, friable, pinkish-gray material. The pia-arachnoid over this area is granular and pigmented bluish-black. Small areas are scattered throughout the brain, some petechial in size, some slightly larger, which vary from deep brownish-black to bright blood-red color. No further examination made.

Microscopic. (Figure IV) Brain: Two types of growth appear in sections examined. In one the tumor cell islands are seen infiltrating the brain tissue with no line of demarcation at the periphery and no peripheral cellular reaction. The cell islands here are of moderate size, but are much larger in the center of the tumor than on the margin. The tumor cells are large but fairly regular in size. Nuclei are large and hyperchromatic. Mitotic figures are common and occasionally atypical. Cytoplasmic outlines are rather irregular, but the nuclei constantly tend to be ovoid in shape. In quite a few of these cells there is an abundance of brownish-black pigment. No fibers are produced. The other type of nodule is sharply circumscribed although tumor cells are often seen invading the capsule-like margin. Some of the nodules are surrounded by ecchymoses, in fact practically lie in a pool of blood. In the margin there is the usual reaction to extravasation, that is, light brown pigment, a zone of compression in which large pigmented mononuclears are seen, as well as a few other inflammatory wandering cells. Also, a few small collections of foreign body giant cells are seen toward the outer zone of reaction. The tumor cells in such areas as just described are more elongated and contain little or no pigment. Diagnosis: Multiple melanomata of cerebrum with hemorrhages.

COMMENT

This patient originally presented a typical case history of a middle-aged person suffering from the

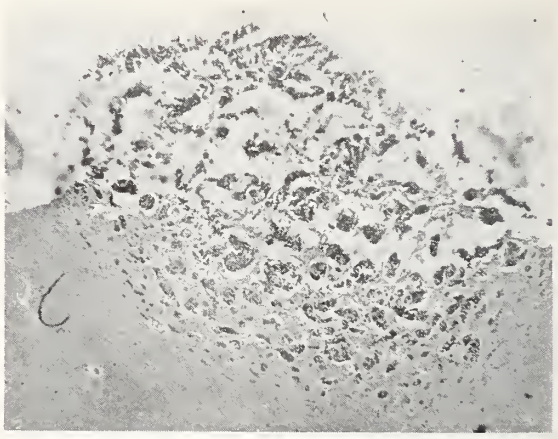


Fig. IV.—Low-power view microscopic section through one of the nodules described in text.

so-called "common variety of apoplexy." He was extremely toxic, and it was apparent that unless something was done he would shortly expire. A ventriculogram demonstrated definite evidence of a space-consuming lesion on the right side. In our experience there are no adequate means of differentiating the intracerebral clots of an intracranial hemorrhage from intracranial tumor other than from the history and at the operating table. In this instance both tumor and blood clot were present, although there was no connection between them. No melanomata were seen at any of the operations. Four of our nine cases have preoperatively been diagnosed as tumor, only to find a subcortical clot at operation. We no longer feel justified in making the simple antiquated diagnosis of apoplexy or stroke, and we now recommend ventriculography on such cases in order to determine the etiological factor if possible. The case here presented is also interesting from an etiological standpoint. Here we have a man who suffered from two intracranial hemorrhages, both of which were operated upon and removed successfully. While he convalesced beautifully from his second operation, he developed signs of bleeding into the opposite cerebral hemisphere. This was likewise evacuated through a burr hole with subsequent death of the patient. Postmortem, showing as it did that all three hemorrhages were rather completely evacuated and drained, serves only to emphasize how well these problems can be handled surgically. Here, however, we were confronted with an added factor of a metastatic malignant tumor. Whether this had anything to do with the tendency to bleed, such as this man undoubtedly had, we cannot say. After his second operation he was given large quantities of vitamin K without avail. Numerous attempts have been made to explain the etiology of such vascular accidents. Charcot and Bouchard were the exponents of the theory that such hemorrhages were the direct result of the rupture of miliary aneurysms. This theory has been accepted and

has been propounded in textbooks for many years. There is only one difficulty: the aneurysms are not found in many cases of bleeding, such as the present case. Globus and Strauss are of the opinion that the spontaneous intracerebral bleeding is due to an area of softening in brain tissues about a blood vessel, followed by hemorrhage from the previously weakened vessel. We believe that the latter theory is more applicable in the case here presented.

4952 Maryland Avenue

ABSTRACTS

'ONE DAY SYPHILIS CURE' ARTICLE IS ASSAILED BY A.M.A. JOURNAL

A recent article in *Reader's Digest* by Paul de Kruif on a so-called "one day cure for syphilis" is assailed by *The Journal of the American Medical Association* for September 5 as "another instance in which Mr. de Kruif has expanded preliminary medical investigations into announcements to the public that go far beyond anything that the available evidence could warrant." *The Journal* editorial says:

"In the *Reader's Digest* for September appears an article by Paul de Kruif entitled 'Found: A One Day Cure for Syphilis,' heralded by the editors of that periodical as 'the medical sensation of the year.' In this article Mr. de Kruif states that 'now there actually is promise of a one day cure.' He asserts without, of course, any basis in fact that 'the standard eighteen month course of treatment is too painful, too dangerous, too prolonged for the mass cure of early syphilis.' After describing certain experiments conducted by Drs. Walter M. Simpson, H. Worley Kendell and Donald L. Rose in the Miami Valley Hospital, he concludes:

'With a one day cure available, with plenty of doctors and nurses trained in fever therapy, and using equipment which costs little war material, we ought really to begin to wipe out the horror of syphilis. There are a million active cases in the United States. With this powerful new treatment, all persons found infected with active syphilis could be taken out of circulation and their danger to the community quickly abolished. The immediate expansion of this chemothermic treatment should bring hope to those countless hundreds of thousands who are inadequately treated or who are not treated at all. In the meantime, all those now under standard treatment should continue it until the new chemothermic treatment becomes generally available; this for their own as well as for the public safety.'

"As nearly as can be determined, all this effusion is based on a few paragraphs from an article on fever therapy by Drs. Walter M. Simpson, H. Worley Kendell and Donald Rose, published in the *British Journal of Venereal Diseases* for January-April 1941, in which the authors state:

'The present plan of treatment is as follows: A ten-hour session of fever at 106 F. (41.1 C.) has been adopted tentatively as the initial unit of fever, since these limits have proved to be safe and practical in the management of patients with refractory gonococcic infection. Prior to the fever session a single injection of 4 grains of insoluble bismuth is administered intramuscularly. During the first seven hours of the height of fever, 240 mg. of mapharsen are administered intravenously by the slow intravenous drip method. No additional antisyphilitic therapy is given.'

"To this they append the following highly conservative opinion:

'While no conclusions are permissible since the period of post-therapy observation is as yet less than two years, the prompt resolution of clinical symptoms and the favorable serologic responses would indicate that further diligent inquiry is demanded. The results of this purely experimental undertaking will be made the subject of a later report.'

"In their ultimate 'conclusions' they say:

'At the present time such treatment should be considered strictly experimental.

'The results achieved thus far should stimulate other investigators to engage in long term, controlled experiments with a view to the introduction of a more rapid, more certain, less dangerous and less costly method of treatment.'

"In a review of syphilis to appear soon in the *Archives of Internal Medicine*, Drs. Frank W. Reynolds, Charles F. Mohr and Joseph Earle Moore of Baltimore say:

'With his usual uncritical judgment, hyperenthusiasm and willingness prematurely to capitalize journalistically on sober scientific experimentation, de Kruif has unhappily drawn nationwide attention to this "one day cure" for syphilis. This tendency of medical journalists to raise false hopes in lay minds can only be deplored. With all due respect to democratic freedom of speech, it is too bad that no censorship exists to compel conservative accuracy from medical sensationalists.'

"This is another instance in which Mr. de Kruif has expanded preliminary medical investigations into announcements to the public that go far beyond anything that the available evidence could warrant. *The Journal* is being deluged with letters from physicians indicating that the article already is doing great harm in creating dissatisfaction among persons with syphilis as to time that may be required to bring about cure. Dr. Walter M. Simpson is an officer in the Bureau of Medicine and Surgery of the United States Navy and has been for some months away from contact with the continental United States. It is unfortunate that in his absence the statements of Mr. Paul de Kruif should have placed him and his research in such an unenviable position before the medical profession."

ALWAYS USE MILD TINCTURE OF IODINE

The strong (7 per cent) tincture of iodine never should be applied to a wound, according to an announcement by E. Fullerton Cook, Phar.D., Philadelphia, chairman of the Committee of Revision of the Pharmacopeia of the United States of America, *The Journal of the American Medical Association* reports in its July 18 issue. The strong tincture evaporates quickly, leaving crystals of free iodine in the wound, which injure the tissues and prevent healing.

According to Dr. Cook, *The Journal* says, "pharmacists should always sell the U. S. P. Mild Tincture of Iodine for first aid, not the strong tincture of iodine; neither should they prepare the mild tincture by diluting the strong tincture, for then it will contain potassium iodide instead of sodium iodide, and the alcohol percentage will not be correct. Sodium salts are much better for application to a wound than are potassium salts."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis

Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis....Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend....Dec. 31, 1944

OCTOBER, 1942

Editorials

OUR PRESIDENT

Due to a series of misunderstandings, plus a delay in getting the biographical material, this editorial did not appear in the Convention Number.

Looking over the biographical data submitted, we note the absence of any reference to the age of our sketch; however, the staff cast about and learned that he was born sometime during the year 1876, thus placing him on the shady side of the sixties.

He naively states that he has one wife and four sons, three of whom are now in Service, the other engaged in his school work.

In looking over the list of Association activities as furnished by headquarters, one can but wonder how one man could have been so active in this work through the years — how one could manage to spare the time necessary for the carrying out of the multifarious duties imposed by the various offices and committee assignments.

For some years past we have looked over the minutes of the meetings of the Executive Committee and rarely have we noted as missing the name of Doctor Austin. Since the average sitting time of a regular meeting of this committee is a matter of eight hours or more and since their meetings are held monthly, one can make some slight estimate of the hour-time donated by Doctor Austin, this in addition to his other Association and county society duties.

He has served, at one time or another, a matter of twenty-five years as secretary of his county society, for several years as councilor from the Eighth Medical District, and for some years as chairman of the council.

Assuming the presidency as of January first of this year, after having served an apprentice year as President-elect, he at once "dug in" and has kept at the job ever since; has traveled hundreds of miles, probably seeing sections of the state he never before had visited, and has talked about it! That is, those who have followed the President's Page during the current year have gained some notion of the feelings of our president regarding the exacting duties of the office. Like many others who have preceded him, he has opined that all is not honor when connected with this office.

Few men in Indiana are so well acquainted with Association affairs as Doctor Austin, and this knowledge will be available to his successors for many years to come, we trust.

As he lays down the duties at the end of the year, he may well say, "I have done my best; I have given freely of my time and energies; I am somewhat content with this well-doing."

We overlooked giving his full baptismal name, a matter that has been the subject of much inquiry about the state; it is Maynard Alvernise Austin. And to Maynard Alvernise we offer our heartiest congratulations!

MEDICAL ENLISTMENTS

As matters now stand, Indiana has filled her quota of medical officers for the armed forces, that is, for the time being. Just what will be asked of us later on is another question, but a little investigation as to what is going on in official Washington would seem to indicate that in the not-far-distant future there will be need for thousands of additional medical officers. In a recent number of *Selective Service* General Hershey makes the observation that "Every Man Twenty to Forty-five Years Old, Is a Potential Soldier!" There we have the direct statement from the man who heads our Selective Service. In the same publication appears the heading, "All 1-B men to be placed in 1-A or 1V-F."

That, of course, means there will be no 1-B men, which in turn probably means that the 3-A men soon will be considered as inductees. Then we have the younger age-group, the eighteen to twenty class, adding thousands of men to our armed forces. All this means that the Army will be increased by several millions of men, and here is where we come in. Medical officers must be found to care for this addition to the armed forces. No longer will we talk about the age-groups, the men of thirty-six — the men of forty-five; we will be talking about physically fit medical men of whatever age. The armed forces will be properly manned by medical officers, you can count on that, but just where they will come from remains to

be seen. But our present job, as we now view it, is to be ready with the answer when the question is put to us.

As we have said, no longer will we sit idly, talking about deferments, age limits, waivers and that sort of thing; the big job is to win this war. The Selective Service means to furnish the armed forces with the necessary number of men to do this job; someone will see to it that medical officers are available when necessary.

Our local procurement committees will find it advisable to do some more classifying. Men will have to be "cleared" who heretofore have been deemed necessary at home for this or that reason. And no longer will the individual physicians have much to say about deferments, etc.; these matters will be handled for them and they, of course, will have to accept such decisions.

All this means added duties to those remaining at home; it means plans for civilian care and it means most careful planning to assure that the war industries will be properly protected in the matter of medical and surgical care for employes. And we are of the opinion that problems of this sort are best met by the local medical groups. We do not believe that a pattern may be set for a whole state, and in some instances a pattern may not be set for a large industrial area.

It is our thought that right now the older groups of physicians, men who know their localities and have no ulterior motives in the matter, should meet and seriously consider what is to be done when additional medical men are called from many of our large communities. The rural areas can ill afford the loss of many more physicians in this state, in many instances there have been too many men taken from the country districts, so it is the urban areas that will have to furnish these men.

It is a big problem but one that will have to be met and met soon. That we will find a way out is an assured fact, but we would urge an immediate beginning of a study of the situation. In a short time the armed forces of America will be "scattered to the four winds of the earth"; our job — and a big one it is — is to see that these forces have the necessary medical attention. Let's make it a local problem!

THE MEDICAL MAN OF SIXTY

Quite some time ago we made an observation in the editorial columns of THE JOURNAL to the effect that we opined that the senior medical student should be charged with a careful reading of that most delightful essay of Sir William Osler, "Equanimitas," presented before the graduating class of the University of Pennsylvania Medical School on May 1, 1889. We have read this little contribution at least once every two years, each year gaining something new from the reading. This was published in 1904, along with several other articles by Osler, and in a foreword to the second edition, published two years later, Osler took occasion to remark on the publicity received because of his utterances regarding the "man of sixty."

It seems that the remarks which occasioned such universal comment over the country were a part of an address, "The Fixed Period," based on a novel by that name by Anthony Trollope. In his essay Osler took occasion to remark, "In that charming novel Anthony Trollope discusses the practical advantages in modern life of a return to ancient usage, and the plot hinges upon the admirable scheme of a college where at the age of sixty men retired for a year of contemplation before a peaceful departure by chloroform." The press of the country announced that Osler advocated the chloroforming of all men at sixty years of age, and raised quite a hullabaloo about it.

In the preface mentioned, Osler comments on this, ending that comment with the statement, "Let me add, however, that the discussion following my remarks has not changed, but rather has strengthened my belief that the real work is done before the fortieth year and that after the sixtieth year it would be best for the world and best for themselves if men rested from their labors."

That statement was made thirty-six years ago, since which time we have had plenty of occasion to see how it works out. Confining ourselves to the medical profession, we find innumerable instances that controvert this idea; and right here in our own state we have several instances of men of sixty having performed some notable feats in medicine and surgery. An outstanding instance is that "Grand Old Man of Indiana Medicine," the late William Niles Wishard, Senior. Had he retired at sixty, urology would have lost many of its notable contributions. As a matter of fact, Doctor Wishard was *at the age of forty just getting ready to do things; he was laying the foundation for his later work!* At fifty he was erecting the superstructure, and at sixty he was just going good. We might cite several other instances of Hoosier medical men who at sixty were doing their best work.

Stepping over into the American Medical Association, we find Irvin Abell, some past sixty, whose work during the past few years has been of incalculable assistance to the medical profession. Frank Lahey, according to the old Osler standard, should have folded his tent some two years ago, but he carried on and his work in the Procurement and Assignment Service alone has more than justified his "hanging on."

And, had the two Mayos heeded the retirement call, there would today have been no Mayo Foundation. So it is that we still cannot agree with the old Osler dictum. But there can be no doubt that we have too many medical men who at sixty seem to have reached the end of the road. They

carry on after a fashion, but in that process they make it clear that they are out of the running — they just cannot keep up the pace.

We often have wondered why this should be, why some men at sixty — even at fifty — slow up, while others keep going and in the going improve as they go. We never had been able to find the answer until very recently, and we are disposed to give due credit to the man who furnished the answer, Dr. George M. Cook, of Hammond. It seems that a dinner guest one evening asked him why it was that some medical men never "grew old"— too old to carry on and do things — while others absolutely stopped in the "fifties." Without a bit of hesitation he answered, "Inquisitiveness!" *And that is the answer.* Medical men of sixty continue to carry on, to go places and to do things solely because of inquisitiveness; they want to know why; they want to know why the wheels go around; and, wanting to know, they seek the answer. In other words, so long as the medical man is inquisitive, just that long will he seek the answer, and in that seeking he learns things and tells the medical world about them.

Referring again to Doctor Wishard, had he not been inquisitive a long time ago as to the cause of death of a man at the Indianapolis City Hospital, during the time Dr. Wishard was serving as its superintendent, the good doctor might never have taken up the study of urology — and great would have been our loss in that study. We could go on relating innumerable instances of great scientific value because someone "wanted to know" and immediately sought the answer.

So it is that we believe our question has been answered: the reason some men, yes, medical men of sixty or more, make these notable contributions to medicine is that they are inquisitive. Further, we believe that a bit more of this inquisitive nature is the best insurance against those senile changes that make old men of those of us of sixty, and that "inquisitiveness" is an attribute that might well be coveted and encouraged by most of us.

PREMARITAL SEROLOGIC TESTS

During the past year approximately sixty thousand marriages were consummated in Indiana. Of these, slightly over forty thousand occurred after establishment of the Indiana Premarital Examination Law. The results of the first year make interesting reading and offer the first opportunity of observing how fully the physicians of the state are coöperating with laboratories which have been approved by the state for the performance of the serologic tests for syphilis, which are required by the law. It has been pointed out repeatedly that the laboratories of the Indiana State Board of Health are designed to perform the serologic tests only on individuals who are either medically or absolutely indigent, and that blood tests on any who are able to pay should be sent to laboratories conducted by pathologists who make their living by the practice of their medical specialty of laboratory medicine. Now, if there is any group of individuals which would by its very nature be composed entirely of non-indigent persons, such a group would be made up of persons who are about to be married and establish homes and families of their own. This group is able also to indulge in all the various expenses of marriage and would naturally be supposed to be able to pay the nominal sum charged for the performance of serologic tests by the pathologists in this state. Therefore, it is rather surprising and disturbing to find that 44.4 per cent of the blood tests performed in the state during the first ten months of the operation of the Premarital Law were conducted in the Indiana State Board of Health Serology Laboratory. It is a fact that there are some parts of the state which are poorly supplied with conveniently located approved laboratories, but the vast majority of the population of the state is just as near to some other approved laboratory as to the State Board of Health Laboratory. No doubt many physicians do not think of the implications of sending their serologic tests to the State Board of Health Laboratory where these tests are performed at Government expense, and others are simply trying to save their patients the one dollar they would have to pay if the test were performed in the laboratory of a pathologist.

An interesting commentary is contained in an excerpt from a talk by Dr. R. H. Warkwith, secretary of the Ohio State Board of Health, on "The Premarital Test for Syphilis," quoted in the Transactions of the Ohio Society of Pathologists. He says:

"Of the 115,000 premarital blood tests done in the State of Ohio, only 1 per cent have been done in the laboratories of the State Board of Health. The balance have been performed in the approved hospital and private laboratories in the state. To the writer this represents a very satisfactory trend — a trend away from municipal and state operation of the sero-diagnosis of syphilis — a trend in a broad sense away from state medicine. In the opinion of the writer, the sero-diagnosis of syphilis is not a public health problem in the sense that epidemic and contagious diseases are a public health problem and that the services of the municipal and state laboratories should be extended only to patients who are financially unable to pay.

"The writer has seen in other states the mushrooming of state service at taxpayers' expense, extending into all forms of diagnostic service including histo-pathology."

It is difficult to understand why there should be such a striking difference in the distribution of these premarital blood tests in two neighboring states. Whatever the reason, it would seem well to draw this apparent disparity to the attention of the medical profession.

THE MAKING OF A "GOB"

From time to time we have commented upon letters from "the men in the Army," which, of course, includes all the armed forces of the nation. Many of these letters have been filled with human-interest tales, giving a vivid picture of what "our boys" think as they make their way through the various courses of training.

Of late weeks we have had the opportunity of reading a series of letters from a young chap who had selected the Navy; just one of the thousands of Hoosier boys who are even now preparing to do their part in the defense of civilization. This lad is not unlike the other thousands; a chap with 134 years of Hoosier ancestry behind him. He had finished his third year at college and did not desire a V-7 rating in order to finish his college course.

Chronologically, his letters reflect the transition from a college youth to his graduation from the "Boot Camp," meaning the five-weeks' period of what commonly is known in Navy parlance as "quarantine."

We find him in camp, a bit lonesome — perhaps with a twinge of nostalgia, four or five weeks ahead in which he can have no visitors — so he uses his spare time in writing letters. His first letter, mailed under the service-franking privilege, carries, in lieu of the postage stamp, the written word "free," which is followed by a large exclamation point. It is evident that the free use of the mails appeals to his Scotch background!

He goes along with his duties, naively stating "There's really nothing to say about my work because I don't know what I am doing; I do just what they tell me." Then came the night of the Chicago area "blackout," when even the Great Lakes went into darkness; our Jack was on Battalion Watch at the time. He describes the sounding of the alert signal, then the call for darkness. "I felt wonderful when the lights went out; I realized what a smooth-working, compact unit the Navy is. I felt that somebody was watching over me and as if I were as secure as I would be in my bed at home. I hope I can get that feeling while I am at sea."

In speaking of the food, he declares that it is good and that there is plenty of it. Of course, he misses some of the special favorites in the food line that he had at home, but he is quite satisfied with Navy fare. Then came another episode which he describes as follows: "We were issued our 'dog licenses' today; they are small pieces of metal, resembling a dog license. On it is my name, serial number and *blood type;* every day I become more of a sailor."

In one of his letters he answered a query from his mother as to what style of washing machine they use in camp — the boys are responsible for their personal laundry. He replied, "Yes, we have a washing machine, but it is an old type; it consists of one right arm, a stiff scrubbing brush and a flat board on which to scrub."

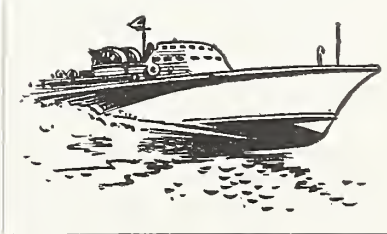
He rapidly became interested in the Sunday church observances in his camp; found the chaplains to be men of unusual experience in handling boys, making them feel that they were welcome to consult the men of the cloth on any and all occasions.

Then came an unusually busy week in which the young Jack Tars had little time for correspondence, following which he wrote, "I suppose you thought that I had gone down with my ship." A bit later when he was thinking about his nine-day leave he headed his letter: "9:15 A. M. — 71 hours and 45 minutes to go!"

In due time he headed home for his leave; he was brown as the proverbial berry, was carrying ten pounds more in avoirdupois than when he entered camp, and was a most enthusiastic Navy man. He is possessed with the notion that the United States Navy is without doubt the greatest institution on the face of the earth; he is ready to enter a six-months' period of radio training — then he hopes to be assigned to a fighting naval vessel. "I hope I can participate in at least two good scraps," he has declared, "I want to do something *real* for my country."

Thus we have the thumb-nail sketch of a young Hoosier, now a full-fledged member of one of the greatest fighting forces in history, thoroughly imbued with the notion that he is a member of the unit of his choice and that the battles to come are battles of defense. In the brief period of five weeks of intensive training he and his thousands of companions have learned "what it is all about"; they leave the "Boot Camp" with the single thought, "now, it is up to me!"

It is small wonder that the American people are proud of their Navy, just as they are proud of their Army, their Air Corps, their Coast Guard, their Marines — and all the branches that go to make up our National Defense. These millions of boys enter the various camps knowing little of what it is all about, as they express it; they accept their assignments and their hardships — they do have hardships — then they emerge from the various quarantines all set to do the things expected of them. It is of such stuff that our armed forces are made, and it is these armed forces that the thousands of enlisted medical men are caring for in the camps, at home, and in the various fighting fields of the world.



WARTIME MEDICAL CARE

Notwithstanding the fact that several hundred Indiana physicians are now in the armed services, plus the fact that many more are to be called ere the war is ended, Indiana folk are not unduly alarmed about medical care problems. They seem to feel that Hoosier Medicine has done a good job in the past and can be counted upon to carry on that tradition.

During the past few weeks we have read editorial comments on this subject from every corner of the state, probably thirty such newspaper articles on the subject having come to our attention. The press has taken kindly to the suggestion that there are many ways in which Indiana folk can assist in this program, outlining several rules, which, properly followed, will materially assist those of us at home in carrying on.

The Indiana State Board of Health is doing a yeoman service in this regard, each of its departments stressing the necessity of lightening the professional burden insofar as is possible.

Hoosier folk need not worry about medical care; doctors will continue to be available but, as Paul McNutt recently so carefully pointed out, unreasonable demands upon physicians must be avoided. As for the doctors, even under the best of co-operation on the part of our communities, it means a long, hard, steady pull—lots of overtime and in many cases loss of much needed rest.

As a matter of fact, there has been too much "luxury" in the thing; by that we mean that there are too many people prone to place practically all family care in the hands of the physician, that they may devote their time to other affairs.

The complaint has been made rather commonly that this is especially true in the matter of some of the specialties, notably that of pediatrics. Now pediatricians are sorely needed, they are doing a fine job of helping raise children but, so runs the complaint, some folk make a luxury of the matter. They find it convenient to send the child to the pediatrician for trouble that could well be managed by a little personal home care, which plan — still quoting from the formal complaint — enables the mother to spend a bit more time at her bridge, golf or what not.

Every physician knows of many instances similar to the above, and it is these little matters that will have to be ironed out. Folk must learn that medical care, while still available in Indiana, will have to undergo a bit of rationing. Doctors continue to be human beings, and as such need a little rest and recreation in order that they may function to the highest degree.

No, there is no occasion to get excited about medical care hereabouts; it still is available and will be available for the duration. But we do ask the coöperation of Indiana folk.

WAR BONDS MORE IMPORTANT THAN EVER!

The universal topic of the nation right now seems to be "War Bonds." We have heard a lot about the subject in the past few months and it is quite apparent that we are to hear more about it in the months to come. There is even the suggestion that the topic may soon be laid upon our desks, on our dining table and elsewhere, with more than the expressed wish that we do something about it. By that we mean that official Washington knows full well of the ability of the average American to buy these bonds, and it is more than a possibility that this knowledge will be capitalized at some future time.

The war is costing a lot of money and this cost will have to be borne by the American people. War Bonds seems to be the present answer for providing ready cash to pay for the armaments so essentially necessary at this time, and the American people are responding nobly — at least many of them — but we still have too many folk who seem not to have become war-minded, and until they do they are not interested in buying War Bonds up to the ultimate limit.

The War Savings Department down in Washington is doing a good job of publicizing the matter, as have various national, state and civic groups. "Bond Breakfasts" are being tried, and in our local community the plan was eminently successful. A dozen or so professional and business men gathered at a downtown breakfast table for some fifteen or twenty seven-o'clock morning sessions to plan the event. On the morning of the breakfast 720 men sat down for the morning toast-and-what-have-you *and bought more than a half million dollars in War Bonds!* It took a lot of planning and a lot of hard work, and nothing was left undone to insure the success of the undertaking. We had at first set a goal of 400 guests at the breakfast; later we raised this to 500, then 600, then we said, "Oh well, we'll take care of all who come!"

Governor Schricker, Internal Revenue Collector Will Smith, together with numerous other dignitaries of the state and nation, plus a goodly representation from the armed forces, were present, each of whom had words of praise for the success of the program.

The net result, in addition to the unexpected total of the bond sales, was that a large number of people bought their first bonds, thus beginning what the committee hopes will become a habit.

We of the medical profession have a big part in the bond-buying program that is now attracting attention throughout the land; we must dig down, deeper and deeper, into our pockets, into our bank accounts and into our savings to pour these monies into the coffers of our Uncle Sam.

We must economize in many ways, the results of these economies being turned into ready cash

for the United States Treasury. We can — we must — cut down on many things; we must sacrifice many of the little pleasures that have been ours in normal times. Yes, we must slow down on our golf expenditures — play less often, then only *eighteen* holes, eliminating the costly *nineteenth*. We must eliminate our visits to the night clubs, where the big, thick, juicy steaks cost a lot of money. (However, the meat rationing board probably will see to that!) But we must economize — and that economy must be represented by an increase in our bond-buying power.

This war thing is a whale of a job, and it all costs money. Millions of American men — and boys — are even now in foreign lines awaiting the call to the second front. Thousands of this same group are now prisoners of war, awaiting the day when they shall be delivered by the American armed forces.

Again, there are millions of the enemy who must be conquered — *they must be wiped out* — and the best material we know of to do this wiping out job is war materiel — bullets, if you must have plain language. War Bonds monies are spent in buying bullets, and we need more and more millions of bullets to make a clean job of it.

Your present dollars will be worth not one red cent if Hitler, *et al*, have their way about it. Spending these dollars now, in defense, is the best insurance you can buy; it is the best investment you can make today.

Yes, let's make it PLAIN! Let's buy bullets and KILL!

Editorial Notes

Due to the fact that the convention was held the last week in September, the reports of the meetings of the House of Delegates and the convention notes will appear in the November JOURNAL.

What is your local medical society doing to encourage the civilian population to conserve the health of the comparatively few medical men left at home? Are you taking full advantage of the local press, every member of which will be glad to coöperate in urging its readers to avoid unnecessary calls and to place the calls early in the day? As the war goes on and as more and more physicians are called into the armed services it will become increasingly necessary that those remaining at home — for the most part men of the older age group — shall conserve their energy. We have a long, tiresome pull ahead of us and we need every ounce of conservation.

The Indianapolis Chapter of the American Red Cross, together with the Marion County Office of Civilian Defense, conducted a campaign to recruit and train nurses' aids during the month of September. This plan should receive the endorsement of every medical group since it means that, particularly in hospital work, these aids can do much to lighten the burden for the comparatively few nurses available in our hospitals.

We have more than a score of clippings from Indiana newspapers for the month of August, calling attention of their readers to the necessity of keeping well during these wartimes; further, the editors stress the importance of conserving the health of the physicians remaining at home. We can do a lot toward educating our clientelé in such matters if we will but take a moment to call their attention to the importance of placing calls early, et cetera.

At the New Castle plant of the Perfect Piston Ring Corporation a hard-boiled, camouflaged American soldier looks down from a poster bearing these words, "Kinda Give It Your Personal Attention, Will You — More Production!" So it is in every plant in our state that is now given over to the production of war materiel; more and more production is demanded that we may do our part in exterminating the vermin arising from and out of certain sections of the world.

The physicians and dentists of Greenfield have organized a Physicians and Dentists Business Association and have opened a downtown office where all business details of the members will be handled by a lay secretary. All bookkeeping details will be handled in this office, and payment of professional fees will be handled there as well. Several doctors and dentists from this community are now in service, and those at home found it a task to look after their business affairs as well as those of a professional nature, hence this move was planned. It will be interesting to learn just how successful the venture will prove.

Turnbull and Franklin, *Journal of the American Medical Association*, September twelfth, frankly advise those with otitis media to keep cotton plugs in their ears while outdoors, thus upsetting the theory that many of the older medical group held that the plugging of the ear canals was taboo. The writers report a case in which thirty-nine screw worms were removed from the external auditory canal of a patient, the eggs from which they developed having been deposited therein by a fly. They also direct attention to the fact that various varieties of flies seek decaying matter into which to make such deposits, the discharges from an otitis media forming an excellent culture bed.

The American Council on Medical Education has announced that due to the speed-up in our medical schools there will be twenty-one thousand physicians graduated in this country during the next three years. This figure is some five thousand higher than that which normally would have obtained before the war. Several of our medical schools have adopted a more or less continuous session, which is being carried out with no sacrifice of educational standards.

A bulletin issued by a large insurance company which maintains a worth-while health preservation program states that since 1921 there have been a half million cases of smallpox in this country and that almost thirty-eight thousand of these cases were in Indiana, more than were reported in all the New England states, the middle Atlantic states, Delaware, Maryland and the District of Columbia. It goes on to say that less than thirteen per cent of the pre-school-age children of Indiana have been vaccinated against smallpox. Indiana has no compulsory vaccination law which, of course, accounts for much of this poor showing.

Just what may be the reason is not clear to us, but it is a fact that in many sections of the country the younger men among the draftees are flocking into the Navy in large numbers, many of them enlisting therein after they are called up for induction examination. It seems that this is the one branch of service open to them after they have been notified to appear for examination. Some Boards find so many of the twenty-one-year-old group going into the Navy as to make it necessary to revamp their schedules in order to meet the calls that come for new men. We have talked to several of these youngsters who have elected to go into the Navy, and their replies are to the effect that the "Navy glamour," whatever that may be, is calling them.

In an editorial, "Thiamine in the American Diet," *The Journal of the American Medical Association* declares that there is likely to be a deficiency in vitamin B in our diet in the months to come and suggests this can be better regulated by the enrichment of our flour with the addition of this necessary element. We have noted similar comment about other necessary food elements, it being apparent that we have learned that we have probably gone too far in the past years in the matter of "refining" our various foods. Dame Nature sees to it that the necessary elements are locked up in the foods she prepares for us, then along comes Man, who begins a process of "refinement," taking from those foods the very things we now find we most need. As we often have stated, we now have to go to the drug store to purchase the elements that have been refined out of our food!

The Terre Haute Tribune is of the opinion that Congressional action may be necessary to "Preserve the present high professional standards of the medical fraternity." In a recent editorial the writer points out that when Congress enacted the present anti-trust laws, certainly they did not mean to include the greatest of all the profession. He maintains — as we all do — that if the Supreme Court upholds the recent decision of the United States Court of Appeals, Washington district, the field will be open to unscrupulous quacks, and that there will no longer be an incentive for medical men to pursue their scientific investigations. As a matter of fact, the Indiana press is almost solidly opposed to such a breakdown of medicine, and this is generally true of the press of the entire country. The trouble is, of course, in getting official Washington to see the matter in the proper light.

Local county medical societies face a problem during the fall and winter months when their regular monthly meetings begin. With hundreds of Indiana physicians already in the armed service and scores more to go at a later date, the attendance problem will be one to be regarded very seriously. Then, too, the fact that the average physician finds his normal duties multiplied several times as a result of the extra work in caring for the patients of those who are away also adds to the problem. However, our medical societies must carry on; they continue to be the basis of American Medicine — without them we would have little or no medical progress — and Medicine must go on and on even though our ranks are distinctly thinned. Those of us remaining at home have a task before us, and it is up to us to so plan things that we will carry on to the degree that when "our boys" come home they will find things in order.

Maurice Early, in his "The Day in Indiana" column, *Indianapolis Star*, wisely comments on the fact that no check is made in the matter of issuing drivers' licenses to persons who have been discharged from our state mental hospitals. Dr. Max Bahr states that he has never been asked for a list of these persons dismissed from the Central Hospital and it is presumed that this is the situation in other hospitals of this type. Dr. Bahr also is quoted as saying that it is his personal opinion that many of these former patients should not be given a driver's license. He specifically refers to those cases apt to have momentary lapses, which, of course, might "happen at the wrong time." It might be well to remember, when discussing this licensing problem, that only a short time ago a man lost control of his car in downtown Indianapolis, killing several folk and injuring many others. Surely this licensing law, as it now stands, merits the acute interest of the 1943 General Assembly.

Nicholai N. Burdenko, chief surgeon of the Russian armies, radioed a message to the recent gathering of the International College of Surgeons at Denver, in which he stated that the mortality of the Russian wounded was less than half that during World War I. He also stated that 70 per cent of the Red Army wounded have been returned to the front line.

The season for infantile paralysis is again with us and calls for unusual precautions. While there is no occasion to alarm the public, the fact remains that right here in Indiana we have frequent outbreaks of this disease and should use every precaution to prevent its spread. One very important matter, one that all too frequently is overlooked and at times utterly disregarded, is that of having children avoid large crowds. To this advice has recently been added a new one, that of having children refrain from wading in stagnant water. We too well recall the urge of children to prance up and down the gutters of our city streets following an extra-heavy rainfall. Health authorities now tell us that this is an all too frequent method of spreading this disease. At some near future date THE JOURNAL hopes to present a group of papers on the subject of infantile paralysis, together with observations of the later methods of management of the disease.

The head of one of our county welfare groups — and this in one of our larger counties — has made a real study of the plan now in vogue for paying physicians for their services to the charges under the care of his organization. Some time ago we observed that the plan of having the Welfare Department check for medical services mailed to the recipient of those services, rather than to the attending physicians, did not meet with our approval. In fact, we registered a personal complaint with the director of the county welfare department in our county. This gentleman now comes forth with the suggestion that the plan seems not so workable and proposes that the matter be returned to the township trustee, where it had been for years. There are reasons why this is not so desirable, chief of which is the fact that in many instances the trustee entered upon a contract with one or more physicians in the matter, which, of course, resulted in much dissatisfaction to both the indigent patients and the physicians of the community. It does seem that a county welfare department — properly operated and properly manned with *competent* case workers — and there are such persons — is the proper agency to carry on this necessary work. And by the same sign it *does* seem that when money is to be paid for medical services it should be paid directly to the physicians and not to the recipient of the medical care — then depend on the honesty of this person to see to it that his physician gets the money!

In presenting the Chairman's Address before the Section on Experimental Medicine and Therapeutics at the recent meeting of the American Medical Association, Wallace M. Yeter, Washington, asked, "What's wrong with modern therapeutics?" He presents a clear-cut analysis of the problem of therapy, being properly critical of some of the things we do and do not do. We were rather intrigued by a statement made early in his presentation, "Our interns are in many hospitals early thrown into contact with busy and older practitioners who have developed their idiosyncrasies of therapeutics. Interns often adopt their peculiarities of practice and their pet and often empirical prescriptions, forgetting or abandoning some of the fundamentals of therapeutics they were so carefully taught in medical school. I have often observed interns ordering polypharmaceutic prescriptions that I know they never learned in school. They seem quickly to forget such things as that digitalis should be used only for congestive heart failure and certain arrhythmias and that 'tonic' doses are of no value. Usually such things are the result of imitation of the bad practice of older men." We wonder who is being indicted, the interns or the older practitioners.

There is no "oil shortage" *per se* in the country; a recent report of the American Petroleum Institute indicates that the production of crude oil is the highest in the history of the industry. There is, however, a shortage of transportation facilities, now that the oil tankers have ceased to ply our coast lines with the regularity that existed before the war. That there will be a gas ration for our section of the country is practically assured, although it probably will not come until "after the election." Indiana folk are fortunate in having a full supply of fuel within her borders and, although we may have found oil burners a luxury, the time probably will soon come when we are asked to forego that luxury and return to the use of coal for heating purposes. The *Providence* (R.I.) *Journal*, recently carried a large paid advertisement in some of our western papers, urging residents of the Middle West to write their representatives in Congress to urge immediate, nation-wide gas rationing. There is no question but that the gas and oil shortage in the East is an acute problem, and it would seem proper for us to do what we can to assist in relieving that shortage. Gas heat remains a question; in the oil refineries and the steel mills of our section of the state, gas heat is coming to be widely used. But in this instance there is no likelihood of any problem, since the gas used is made from the by-products of the steel and oil industries and would otherwise be wasted to a great degree. In these times of war we not only have to look out for ourselves, but must cast a weather eye toward the other fellow to see how he is faring.

Thirty years ago Dr. Herman G. Morgan, of Indianapolis, took a "temporary job" as the acting head of the health department of that city. He still is heading that service and through the years has acquired a national reputation for having kept this department at the top.

Our local medical groups have somewhat of a problem before them. Regular meetings are to be resumed following the summer vacation period, and we trust that plans will be made to not only carry on as usual but that special efforts will be put forth to make these meetings what they should be. True it is that many members are now in service and that those remaining at home will be busy, but medical organizations must carry on. The planning of programs will be more difficult than ever before; the man who is asked to present a paper will say "I'm busy," and guest papers, which in many societies have monopolized programs for many years, will be fewer in number from now on until the end of the war due to the fact that men from other points are not available to the extent they formerly were. But, as we long have maintained, there is plenty of local talent available even in the smaller groups. After all, a good medical paper consists in the portraying of one's personal experience, and every active medical man has plenty of these experiences. Writing papers may easily become a habit and it is a good habit to nurture. We "import" a speaker who has done a lot of research on some subject; he talks of this, and few of those present are able to participate in the discussion, save to ask a question or two. But when a local man speaks, he is talking "right down our alley" and we are able to enter the discussion on an equal footing. By all means let every county medical society in the state carry on; make your programs local in character as far as possible; but if you need help, our Bureau of Publicity will respond to your call for assistance.

"V-D" control seems to be getting somewhere; our local health groups, probably because of prodding on the part of the State Board of Health and the United States Public Health Service, have entered into the campaign with much vigor. "Look out for the health of the Army" means more than the safeguarding of the food and water supply; it means more than seeing to it that the camps are kept clean and that the sleeping quarters are sanitary; it also means that exposure to venereal diseases, such as is commonly experienced in time of war, is to be eliminated insofar as possible. Already many of our courts have indicated that they will do their part in the campaign, numerous instances having been noted in the daily press concerning prostitutes infected with these diseases having been sent to jail until such time as they have been properly treated for their infections. "Camp followers" are being picked up and dealt with as they should be. After all, "our boys" are being most carefully looked after.

Never within our memory has there been a time when state boards of health have been such a necessary part of our economy. What with the centralization of hundreds to thousands of people, as a result of a new war industry, these officials have been put to it to safeguard the health of these workers and their families. The powder plant at Charlestown may be cited as one of the first examples here in Indiana. This is one of our older communities and for years had gone along the even tenor of its way, but suddenly found itself the center of an influx of hundreds of workers who with their families added materially to the population, which, of course, means a decided increase in health problems. Our state health officials tackled the problem as soon as it developed; surveys of all necessary sorts were made; the sewage problem was assigned to the engineering department, the housing problem to another group, and so it was that in a comparatively short time the major problems were solved. One hears little complaint as to health matters in that community these days. With the coming of other large war industries, all these health problems again arose in other sections of the state. Just now we have the same situation at Kingsbury, again in Vermillion County, and on a smaller scale in other sections of the state. Camp Atterbury, while an Army camp, offers many problems to the Indiana State Board of Health, chief of which seems to be the venereal disease control. This is being met with a firm hand, due to the activities of our own board, plus the pronouncements of the United States Public Health Service. In some of these areas the local health boards had gone along for years doing the things expected of them and meeting the little problems that occasionally arose, assisted by the state board; now the pattern becomes more complex and the full-time men from the parent organization have taken over. In some quarters concern has been expressed lest the United States Public Health Service take over to the extent that the state officials will become a part of that organization. This fear is based on the fact that many state health officials are of draft age, hence, are likely to be called into service. It has even been suggested that these local men be taken over by the United States Public Health Service and be given commissions. We hardly believe that this is necessary; we feel certain that our local draft boards will recognize the importance of health organizations and see to it that these key men are retained in their present positions. We have come to be more than proud of the set-up of the Indiana State Board of Health and want to see these men continued in their posts.

Buy
War Bonds

President's Page

SECRETORY

The above title is near enough to my text to be more than a pun on the fact that you expect to get something out of the county society SECRETARY when he is elected to that office. But far too many county medical societies are such in name only, without plan or purpose, and the secretary is either the youngest or the newest doctor in the community, or else an easy mark who the others think may be flattered by being elected to the job. During the first ten years that I was in practice we had a new secretary almost every year. I, among the others, was elected and then kicked out the next year because another young fellow hadn't had the job. One session as secretary was usually the limit for most physicians. A woman doctor was elected to the job one year and she was so faithful in her attendance and in the performance of her duties that it cramped the style of some of the old-time windjammers who could talk an hour on any subject that anyone else started. The second time I was elected I was not at the meeting, and all those present refused the job. They thought it was a good joke, and they repeated their method by honoring my absence the next year. Then my election became a perennial affair, with five years out in the last thirty. I started my BULLETINS in 1924 and added the *ASBESTOS* inserts ten years later. My first BULLETIN carried these introductory remarks:

"DEAR DOCTOR:
"THANKS FOR THE LEMON.
NOW LET US ALL HAVE LEMONADE.
BUT IF YOU HAVE ONE, YOU WILL HAVE TO MAKE IT.
YOU ARE THE ONLY MEANS OF MAKING YOUR SOCIETY A SUCCESS.
IF IT HAS BEEN A FAILURE IN ANY WAY, YOU ARE PARTLY RESPONSIBLE.
PAYING YOUR DUES WITHOUT TAKING ANY PERSONAL INTEREST WON'T MAKE IT GO.
WHAT YOU GET OUT OF ANYTHING IS DIRECTLY IN PROPORTION TO WHAT YOU PUT INTO IT."

The majority of secretaries are, I believe, conscientious in their hopes to make something of their efforts, but because of non-support by the members, lack of attendance, and the combination of indifference and complacency they react to the moods of the members and become washouts. Every organization should have four objectives:

First — ACQUAINTANCE.....To bring about understanding.
Second — FELLOWSHIP.....To bring about good will.
Third — FRIENDSHIP.....To encourage brotherhood.
Fourth — EDUCATION.....To increase individual efficiency.

There is one thing, however, that I can not condone and that is the gross neglect of far too many secretaries in answering letters. *Sixteen secretaries never answered the request of state headquarters to send in a list of their delegates and alternates although a stamped return envelope was enclosed. Therefore, these sixteen counties could not be given representation on the various committees appointed to transact the business of the House of Delegates at our meeting at French Lick.* I have had to write as many as three times to get information which could have been answered in two minutes. I have invited committees to take part in some important meeting and never received a reply. I recently wrote an urgent letter to seven adjoining county secretaries, and no word was received from any of them. These are not only inexcusable discourtesies but are reasons why we are drifting towards a *have-to situation* wherein some political parasite will write letters, using envelopes requiring no stamps, telling us where to go and what to do, and there won't be any *or else* sent with it. We will know by that time what *or else* means.

What part of your income are you putting into government bonds? Just remember that if we lose this war your annuities, your insurance, your savings, and your independence will be the cost of your complacency. We must win this war!

Have you made out, for the state legislative committee, reports on candidates for the next election? The irregulars, lined up with the K K K and the A F L, are leaving no stone unturned to promote separte boards and will demand hospital recognition if your neglect makes their success possible.

(The foregoing opinions are those of the writer and not necessarily those of the Journal.)

M A Rustin

NEW REGULATIONS CONCERNING THE GRANTING OF COMMISSIONS TO PHYSICIANS

Dr. Frank Lahey, chairman of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, reports, "It is important that all corps and state chairmen acquaint themselves with the new regulations concerning the granting of commissions to physicians, as detailed in the below release from the Surgeon General's Office:

" 'August 22, 1942.

'The Surgeon General of the Army published detailed information concerning policies governing the initial appointment of physicians as medical officers on April 23, 1942. Necessary changes are given wide publicity, at his request, in order that the individual applicants, and all concerned in the procurement of medical officers, may know the status of such appointments.

'The current military program provides for a definite number of position vacancies in the different grades. The number of such positions must necessarily determine the promotion of officers already on duty and, in addition, the appointment of new officers from civilian life. Such appointments are limited to qualified physicians required to fill the position vacancies for which no equally well qualified medical officers are available. Such positions calling for an increase in grade should be filled by promotion of those already in the service, insofar as possible, and not by new appointments.

'If this policy is not followed, it would definitely penalize a large number of well qualified Lieutenants and Captains already on duty by blocking their promotions which have been earned by hard work. In view of these facts, it has been deemed necessary to raise the standards of training and experience for appointment in grades above that of First Lieutenant.

'With this in view, the Surgeon General has announced the following policy which will govern action to be taken on all applications after September 15, 1942:

'All appointments will be recommended in the grade of First Lieutenant with the following exceptions:

'*CAPTAIN.* 1. Eligible applicants between the ages of 37 and 45 will be considered for appointment in the grade of Captain by reason of their age and general unclassified medical training and experience.

'2. Below the age of 37 and ABOVE the age of 32, CONSIDERATION for appointment in the grade of Captain will be given to applicants who meet all of the following minimum requirements:

a. Graduation from an approved medical school.

b. Internship of not less than one year, preferably of the rotating type.

c. Special training consisting of three years' residency in a recognized specialty.

d. An additional period of not less than two years of study and/or practice limited to the specialty.

'3. Eligible applicants who previously held commissions in the grade of Captain in the Medical Corps (Regular Army, National Guard of the United States, or Officers Reserve Corps) MAY BE CONSIDERED for appointment in that grade provided they have not passed the age of 45 years.

'*MAJOR.* 1. Eligible applicants between the ages of 37 and 55 MAY BE CONSIDERED for appointment under the following conditions:

a. Graduation from an approved school.

b. Internship of not less than one year, preferably of the rotating type.

c. Special training consisting of three years' residency in a recognized specialty.

d. An additional period of not less than seven years of study and/or practice limited to the specialty.

e. The existence of appropriate position vacancies.

f. Additional training of a special nature of value to the military service, in lieu of the above.

'2. Applicants previously commissioned as Majors in the Medical Corps (Regular Army, National Guard of the United States, or Officers Reserve Corps) whose training and experience qualify them for appropriate assignments may be CONSIDERED for appointment in the grade of Major provided they have not passed the age of 55.

'*LIEUTENANT COLONEL AND COLONEL.* In view of the small number of assignment vacancies for individuals of such grade, and the large number of Reserve Officers of these grades who are being called to duty, such appointments will be limited. Wherever possible, promotion of qualified officers on duty will be utilized to fill the position vacancies.

'Much misunderstanding has arisen concerning recognition by Specialty Boards and membership in specialty groups. It will be noted that mention is not made of these in the preceding paragraphs. This is due to the variation in requirements of the different boards and organizations. Membership and recognition are definite factors in determining the professional background of the individual, but are NOT the deciding factors, as so many physicians have been led to believe.

'The action of the Grading Board, established by the Surgeon General in his office, is final in tendering initial appointments. Proper consideration must be given such factors as age, position vacancies, the functions of command, and original assignments. All questionable initial grades are decided by this Board. Due to the lack of time, no reconsideration can be given.

'There are in the age group 24-45 more than a sufficient number of eligible, qualified physicians to

meet the Medical Department requirements. It is upon this age group that the Congress has imposed a definite obligation of military service through the medium of the Selective Service Act. The physicians in this group are ones needed NOW for active duty. The requirements are immediate and imperative. Applicants beyond 45 years may be considered for appointment only if they possess special qualifications for assignment to positions appropriate to the grade of MAJOR or above.'"

NOTES ON THE 1942 A.M.A. CONVENTION AT ATLANTIC CITY

MISCH CASPER, M.D.
LOUISVILLE, KENTUCKY

The ninety-third annual meeting of the American Medical Association (the thirty-fifth that I have attended) was, in spite of the war, the largest of all times and one of the best. It constituted a postgraduate study of scientific achievement. Many other societies not affiliated with the A.M.A. meet prior to or just after the official convention and also form a good drawing card. Some of the sections have made notable advances, especially those in experimental medicine and physiopathology. Radiology has also grown by leaps and bounds. These notes will, however, deal principally with the scientific exhibits, of which there were 277—every field of medicine being covered.

The liver has always been recognized as an extremely important organ; its size denotes that. Much is now being done in clinical medicine to check the liver functions. Several booths were devoted to this study. The use of vitamin K for hypoprothrombin in surgical conditions of the liver has greatly improved the operability, especially in cases accompanied by jaundice. The phosphatase test is not now considered valuable. The exhibitor favors the bromsulfalein test, and has found the azorubin test for liver function excellent. Naturally, the Graham Cole test does not show liver function. In liver disease the water excretion test is valuable and requires no laboratory procedure. Polyuria always means an improvement in liver function. Non-protein nitrogen retention is a valuable test for operative interference in obstructive jaundice. Other indications for immediate surgery in obstructive jaundice are an increase in the icterus index, a fall in prothrombin level, positive cephalin flocculation test, increase in galactose excretion, decrease in hippuric acid excretion, positive Millon's test, and a fall in vitamin A in the blood. Urobilin is increased in the stool and urine in hemolytic jaundice. Urobilin is found in the bowel and thus in the stool of patients with obstructive jaundice; bilirubin is not found there, but a great deal is present in the urine. Urobilin and bilirubin are both found in the urine in hepatitis, advanced carcinoma, and stone without obstruction. The best liver function tests are the galactose, hippuric acid and cephaline flocculation. All these tests require much work, but give an accurate picture of liver function and liver diseases.

The exhibits on the treatment of burns were up to date. The first thing to be considered in treating burns is caring for shock. The triple-dye formula was given, consisting of crystal violet (hexamethylpararosaniline hydrochloride 1.5), neutral acriflavine: the base 3:6 (0.75), brilliant green 1.0. Make a 2 per cent aqueous solution of mixed powder. The exhibit illustrated three thousand burns, and by means of charts showed plasma lost with crust-forming substances. Morbidity and complications were also pointed out.

Backache came in for a wonderful series of demonstrations. These booths and demonstrations were closely followed by a large number of physicians. As one physician remarked, this exhibit alone was worth the trip to the convention. The exhibits and demonstrations were carried out with the patients and models dressed in shorts. One exhibitor showed that the sacro-iliac joint can be palpated by rectal examination. Spastic iliotibial band is another cause for back trouble, and pain is elicited by laying the patient on his side and putting the band on a stretch by using passive movement of the leg. One booth indicated the pathology, another the diagnosis, and a third the treatment.

Some of the diseases that may manifest themselves in backache are: pancreatitis and carcinoma of the pancreas, both accompanied by loss of weight; retroperitoneal ulcers of the stomach and duodenum; retrocecal appendix; diseases of the gallbladder and heart; diaphragmatic hernia; and liver and chest diseases. Sometimes in cases of stone in the gallbladder backache is the only symptom. Stress was laid on posture in advanced pregnancy. Hydronephrosis of pregnancy, retrodisplacement of the pregnant uterus with adhesions, carcinoma of the uterus, pelvic inflammatory disease, prolapsed uterus, endometriosis, tumors of the uterus and ovaries, and dyspareunia are other causes of backache and should all be ruled out in any patient complaining of backache.

Sometimes simple things cause backache, such as hemorrhoids and even impacted feces. The latter, of course, is relieved by a good bowel movement. Hemorrhoids may be due to portal hypertension, which produces anoxemia with mucosal turgescence. Operation on hemorrhoids naturally will not relieve this kind of backache. Usually in hypertension of

the portal circulation ascites and disease of the liver with protein imbalance are present. Other causes of backache are stricture and spasm of the female urethra. These symptoms are very commonly noted by urgency of urination, frequency, and a sense of full bladder which persists after voiding. A cystoscopic examination may show trabeculation of the bladder. Dilatation of the urethra will relieve the backache and symptoms at once if due to stricture.

Treatment of backache may be summarized into physical therapy, application of heat (bank-o-lights), massage, and exercise. Bank-o-lights may be improvised with a 250 watt light bulb in a chicken coop shaped dome. Infra-red is an especially good means of heat, and applications should be of about thirty minutes' duration. Hot paraffin painted over the back in a dozen layers is very effective, and the same paraffin can be used over and over again. Short-wave diathermy is perhaps the best method of applying deep heat. Sometimes spasm of the fascia lata is the cause of backache, and this is relieved by fasciotomy, which gives prompt relief. Tight hamstrings may be stretched by manual stretching and various forms of exercise. Stretching of the tendo achillis, by standing with the toes on a book, is a form of exercise which should be repeated frequently. Other exercises, including those of the gluteal and abdominal muscles, are of decided value. Backache, it must not be forgotten, is always a symptom; finding the cause is the big problem. Sedatives may be used as temporary adjuncts to treatment. Strapping the back is of great value. To prevent blistering from the adhesive, paint the surface first with a compound tincture of benzoin. The plaster extends from the trochanters to the ribs, pulling the buttocks together with the letter X form of strapping, using two or three layers of adhesive, which go halfway around the body. Elastic girdles, binders, corsets, braces, and plaster of paris forms of jacket all have their place in giving support and rest to the affected muscles. A Bradford frame bed is valuable, or sometimes simply a board or two is placed under the mattress. It is well to have the board about nine inches shorter at each end than the mattress. After patients once become accustomed thereto, many prefer to continue the use of the board. If a painful joint is relieved, the backache will automatically stop. A corset should really fit and should be built for each particular patient. It should fit well over the crest of the ilium, should open at the back, with two steel staves on each side of the opening, and should have two low back straps for adjusting. No corset or belt ever cured a backache, but may relieve muscle spasm, after which exercise should be instituted. The demonstrators called attention to a form of sciatica that is caused by spasm of the iliotibial band. A pillow under the knee will give relief. The sciatica may be bilateral. Incising the band cures this form of sciatica. Nucleus pulposus is rare, and many cases do not need operative procedure. Some who are operated upon are not relieved of backache. Rest, plus corset, plus exercise, cures approximately 75 per cent of backaches. If one leg is shorter than the other it causes backache, which can be relieved by raising the heel on the short side ⅜".

As diagnosing a backache may require lumbar puncture, cell count, spinal pressure estimation and other tests, it may call for the combined services of a roentgenologist, neurologist and orthopedist, in addition to the examining physician.

A new test for pregnancy is a frog test, and is said to be 100 per cent accurate. The frog used is a special species from South Africa, and the suspected urine is injected under the frog's skin. Six or eight hours afterwards the frog lays eggs if the test is positive. It works in ectopic gestation and is positive after three weeks of pregnancy. This type of frog ordinarily does not lay eggs. The chief drawback to this test will be the difficulty in securing the frogs, because of the war and its resultant transportation problems. No doubt we shall be able to raise the frogs here before long. The test is so simple that any physician can perform it in his office.

X-ray treatment of inflammatory processes was demonstrated, and its use as a therapeutic agent is constantly increasing. Certain forms of infection are relieved by this type of x-ray therapy. New processes and methods of application are continually developing.

Blood plasma, which is coming to the front, was exhibited showing clinical analysis of its use. It was recommended that 1,000 cc. be given daily for postoperative hypoproteinemia. This may be given intravenously, subcutaneously, or intramuscularly. Blood plasma banks are operated in connection with blood banks. Blood, after it is seven days old, is converted into plasma, which is useful and staple for two years.

A new prothrombin clotting-time-reducing agent is a drug called "Dicoumarin." This is given by oral administration, 300 mg. for two successive days at which time the prothrombin time is checked and a basic dosage established. If clotting time is still elevated another 300 mg. can be given according to prothrombin time. Its use is especially advocated in thrombosis and embolism, and as a preventive it should be given the day following surgery. The exhibitor has had no bad results or regrets in the few cases he has used it. The drug is counteracted by transfusion, which must be repeated. Hemoptysis may occur. There is a definite decrease in intravascular clotting in dogs. The drug is useful in thrombophlebitis. It should be used with caution in patients with ulcer or a granulating lesion. The drug has not yet been placed on the market but offers promise. Dicoumarin acts similarly to heparin, which is a hormone. The latter's effects wear off quickly, in three-fourths of an hour. The action can be prolonged several hours by administering it into the medullary cavity of the bones of animals. Heparin is contraindicated when digitalis or ouabain has been used. Heparin must be discon-

tinued slowly, or there is danger of getting a rebound or thrombosis.

A combination of morphine and prostigmine was shown to be valuable in obstetrics. When prostigmine is combined with a small dose of morphine the relief from pain is as complete as when a larger dose of morphine alone is used. Prostigmine and morphine analgesia is a safe and effective agent for the relief of labor pains. It does not affect the baby or the respiration of the mother. It definitely reduces instances of postpartum urinary retention. This combination has an oxytocic action.

Another exhibit on the analgesic action of morphine with prostigmine showed that excellent relief from pain was obtained in a variety of cases by using 1 cc. of a 1:2000 solution of prostigmine methyl sulfate with decreased amounts of morphine. There were no untoward effects from this combination. Because of its intestinal peristalsis stimulation it counteracts the tonic constipation caused by morphine. It is also valuable in treatment of the pain that accompanies addiction. The combination acts as a cholinergic with regard to its effect on pain impulses.

One interesting exhibit was on ammonium salts for relief of pain. The common pitcher plant of eastern swamps was first used, but it was found that the ammonium salts were the active ingredients. Either muriate or sulfate may be used. For neuritis the suggested formula was: ammonium sulfate or chloride 0.75 per cent, benzyl alcohol 0.75 per cent; and sodium chloride 0.75 per cent. It is also given in intraspinal injection, in 6 per cent or 7 per cent solution ammonium sulfate or chloride. This injection should be preceded by a small shot (50 mg.) of procaine hydrochloride intraspinally; then wait for anesthesia before injecting the ammonium, as otherwise severe pain follows. The ammonium solution is heavier than spinal fluid; therefore, lay the patient with the pain side down and the head elevated. It controls metastatic pain of cancer, alcoholic neuritis, and other forms of neuritis. In treating neuritis locally it is necessary to inject it into the nerve. It is of no value in early cancer. This is a distinct and new contribution.

Photography is yearly becoming more useful as a diagnostic aid. One booth illustrated intra-abdominal photography in color, the procedure being called laparoscopy. Another photographic method in conjunction with gastroscopy is gastrophotography, in which colored plates are also used. One exposure gives sixteen different views of the interior of the stomach. Early carcinoma can thus be detected. This type of photography is not difficult to the expert, and the method can be made practical to anyone. The Eastman Kodak Company furnishes the colored films and also develops them. Certainly, gastroscopic diagnosis of diseases of the stomach has been making rapid progress in the past few years.

Operations for hernia have been improved notably by the use of fascia lata in repairs. This method has been used long enough to have proved its value and is especially useful in herniae of both inguinal and postoperative types. A vein stripper will serve to secure fascia through a very small incision. Repair of difficult herniae may also be done with a pedicle fascia lata flap method. The fascia lata is stripped from below upwards, the upper end not being detached. Fascia lata can be used also when there is not sufficient fascia to close the wound, and to reinforce weak or widely separated fascial layers.

Surgery of the biliary tract was portrayed in three splendid exhibits. Stricture of the common bile duct was given particular attention.

CAUSE	PREVENTION
1. Ulceration from common duct stones.	1. Early removal of gall stones.
2. Inflammation of the bile ducts.	2. Early and prolonged "T" tube drainage.
3. Accidental excision of part of common or hepatic ducts.	3. Adequate exposition of the ducts at operation.
4. Hematoma of the cystic artery.	4. Pressure on hepatic ducts and suction.
5. Ulcer of the posterior duodenal wall.	5. Subtotal gastrectomy with dissection of the common duct plus "T" tube.
6. External trauma.	6. Avoid trauma.
7. Carcinoma of the ducts.	7. Early removal of stones to prevent carcinoma.

The next exhibit showed operative repair of stricture of the common duct. The modus operandi consists of: (1) anastomosis; (2) cutting of stricture and widening of duct by transverse suture; (3) tube implantation, one arm of "T" tube extending into duodenum; (4) hepatojejunostomy; (5) jejunostomy; (6) cholecystectomy; and (7) choledochostomy. All these operations were illustrated very graphically, with some new technique. Cancer of the bile tract constitutes 6.9 per cent of diseases of the gall bladder. The locations of cancer causing obstructive jaundice were revealed in the following figures: pancreas, 59.6 per cent; ampulla of Vater, 5.3 per cent; bile ducts, 8.6 per cent; liver, 9.9 per cent; and gall bladder, 16.6 per cent. The exhibitor reported that during the past thirty years he has explored the common duct in 34.4 per cent of his cases. Jaundice is a preoperative danger sign. It may be due to: (1) malnutrition; (2) low liver function; and (3) reduced blood prothrombin. The treatment consists of high carbohydrate and protein (non-meat), low fat diet. Avoid dehydration, give parenteral glucose solution, vitamin B complex plus vitamin K parenterally, bile salts, and choline. If there is no improvement under this treatment the prognosis is bad. Avoid barbiturates and avertin as analgesics. Use only minimal opiates. Force glucose and fluids. Liver failure findings are: deep jaundice, renal failure, coma, fever, and acidosis. Bleeding means reduced blood prothrombin and denotes need of vitamin K intravenously with multiple blood transfusions or plasma. Other treatment is oxygen and glucose given parenterally.

The symptoms given for tuberculosis of the peritoneum were: distention, rigidity of the abdo-

men, chronic pain, acute tenderness, ascites, abdominal tumor, loss of weight, fever, obstruction, and vomiting. The disease is missed in 50 per cent of the diagnoses, and is not suspected until operation. The method of treatment advocated by the exhibitor was rest, avoidance of operation, fresh air, vitamin C, protein, iron, and tapping for removal of embarrassing fluid.

One exhibit showed some new clamps for operative treatment of cancer of the rectum and sigmoid without colostomy. As many physicians have to undergo this operation, they will be interested in the method. It saves the sphincter ani, which certainly is an asset to the unfortunate patient. The exhibitor claimed low mortality and increased operability.

A splendid exhibit on carcinoma of the breast showed a new symptom, or sign, elevation of the nipple of the affected breast, with or without retracted nipple. The elevation of the nipple is due to the same pathology as the retracted nipple. This exhibit showed many splendid pictorial illustrations and gave food for thought.

Another exhibit pertained to cancer of the ovary. It illustrated cystic tumors of the ovary and stated that cysto-adenoma of the ovary is often radiosensitive. (Heretofore they have not been considered so.) Also, cystofibroma is radiosensitive, but papillary carcinoma is not. Krukenberg's tumor of the ovary is a metastatic form from cancer of the stomach in 80 per cent of the cases, and also from cancer of the colon.

The next exhibit was on the use of radium in carcinoma of the uterus. This exhibitor advocates interstitial radiation while the abdomen is open. He recommends 2,000 roentgen units. He gives a total of 10,000 milligram hours in divided doses over a period of six or eight weeks, using six needles of 13 milligrams each, and eight needles of 6½ milligrams each. He gives x-ray therapy while the abdomen is open. He uses the sulfa group of drugs in the vagina for packing after the biopsy specimen is secured. These large doses are especially indicated in fat patients and those with inoperable carcinoma. He stressed the fact that the radium should be placed where the cancer *is*, especially so that the radiation will be evenly distributed with no dead zones. Very large uteri require more radium, and large pelves require more radium than small pelves.

One of our South American guests gave an interesting report on cancer experiments in animals. He seems to have proved that vitamin B complex protects against cancer; it is especially helpful in preventing the development of cancer from overdoses of estrogenic hormone. It is now known that an imbalance in certain glandular secretions in the body, known as steroid hormones (the hormones secreted by the reproductive organs and the cortex of the adrenal gland chiefly), has produced cancer of connective tissue in a large percentage of female animals. The balance is established in the liver. The B complex inactivates and eliminates the steroid hormones not needed by the body. This discovery is another step in the solution of the cancer problem.

Another exhibit evaluated surgery and x-ray by experiments on rabbits. It is the toxins which usually kill the animals. X-ray therapy given forty-eight hours before toxemia sets in confers some immunity on them. Serum from other x-rayed animals gives even more immunity and protection. X-rays given preoperatively may act as a protective in poor risk cases. Sulfa drugs do not confer this kind of immunity. It was shown that x-rays produce an antibody that combats toxemia, especially pneumonia, surgical mumps, and gas gangrene. The exhibitor advocated the use of x-ray preoperatively in acute appendicitis with peritonitis.

I am sorry that time and space do not permit a more detailed account of these very interesting and educational exhibits.

ABSTRACT: TELLS OF SIMPLE WAY TO TREAT NAIL PUNCTURE WOUNDS OF FOOT.

A simple plan of treatment for nail puncture wounds of the foot is described in *The Journal of the American Medical Association* for May 30 by Fred H. Bowen, M.D., Lieutenant (j. g.), U. S. Naval Reserve, New River, N. C., who says that a total of 661 such wounds were treated by the method with no tetanus or deaths.

Pointing out that there is a wide diversity of opinion in medical literature concerning the proper treatment of such wounds of the foot, Dr. Bowen says that "most authors advocate probing the wound, laying it open, injecting an antiseptic solution . . . and instituting some form of drainage. It is my opinion that such treatment is unnecessary, painful and harmful and that it is followed by prolonged disability and at times by a painful . . . scar. Foreign bodies are not often carried deeply into the foot by a nail but they lie in the dermis or just beneath it. . . ."

He says that he has demonstrated that nails (6 to 20 penny) are wiped clean in the first ¼ inch of the wound.

In dealing with cases of nail puncture wounds incurred by laborers in the construction of the United States Naval Air Station at Jacksonville, Fla., he says, the following simple plan of treatment was used: The foot was soaked for fifteen to thirty minutes in hot water to which liniment of soft soap or a small quantity of a solution of cresol was added. The foot was dried carefully, and an area about 2 to 3 inches in diameter around the wound was painted with tincture of mercresin. The top layer of the skin was cut away around the wound. This exposed the foreign matter (usually sand, rarely particles of sock, leather, rust, rubber or concrete), which could then be easily removed. A dry dressing was applied, and 1,500 units of tetanus antitoxin was given. If the wound was caused by a nail larger than a 10 penny, the patient was told not to work for at least one or two days, but if a nail of lesser diameter was involved he returned at once to work.

WHAT WENT ON DURING WORLD WAR I

(Items from The Journal of October, 1917.)

This was the post-convention number, the meeting having been held at Evansville. There were but two scientific papers in this number; H. K. Bonn, Indianapolis, had written on "Coagulen (Kocher-Fonio.) Personal Experiences in Eight Cases." W. F. Hughes, also of Indianapolis, had discussed "Some Observations Concerning Cataract and Its Management."

Editorially, THE JOURNAL discussed a variety of subjects, among them "Nutrition," "Typhoid Epidemics," "The Evansville Session," "Helping Doctors to Help the People," and "Conservation of Food." Concerning the discussion of typhoid fever it seems that during the previous month there had been much of this disease in several sections of the state. Vaccination against this disease was strongly urged, the experiences of the armed forces in this regard being brought to the attention of local health authorities.

At the annual meeting the following officers were elected for 1918: President, Joseph Rilus Eastman, Indianapolis. Vice-presidents — in those days we had three such — V. V. Cameron, Marion; H. H. Martin, Laporte; and E. A. Sturm, Jasper.

The State Association dues for 1918 had been raised from two dollars to four dollars, and the editor strongly urged all members to attend to this little matter right now.

Attention was called to the fact that the new rules of the Indiana State Board of Health, governing the sale of milk, had become effective.

An editorial note in this issue urged the medical schools to "improve their courses in materia medica and therapeutics. In the average medical school the science and art of drug prescribing is given scant attention."

Unfair promotions in the Army service came in for a characteristic denouncement on the part of the editor. Political pull, it seems, was charged with a number of these promotions.

The News Notes section of THE JOURNAL was quite well filled with comments about new medical enlistments, changes in location, and advancements in rank for Indiana medical men.

Indianapolis was experiencing a sizable epidemic of diphtheria, and two additional doctors had been assigned to medical officers of the schools of that city.

Sixty-five nurses from Base Hospital No. 32 had left Indianapolis for special training in New York City. This group represented more than twenty training schools.

Red Cross Ambulance Company No. 18, headed by Captain Mason B. Light, had entrained for Camp Grant. This unit was composed of young men from Indianapolis and from Broad Ripple.

Haven Emerson, commissioner of health of New York City, during an investigation of the sale of large quantities of fraudulent salvarsan, unearthed a fake medical school, the "diplomas" of which could be had for the modest sum of $1,500.

Medical students of the second, third and fourth years had been exempted from the war draft. Notwithstanding the fact that several such students in our own medical school had received official notice of this from Washington, it seems that some local boards continued to order these men to report for induction into the regular service.

Association members about to enter the armed services were advised to check up on their life insurance program to see just what coverage would be available during their war service.

A letter written by Dr. Joseph Colt Bloodgood had been sent to all physicians by the War Department, calling attention to the very great need for medical men in the armed forces and urging all physicians to enlist in such service. It seems that the only groups to be considered as being "essential" to home service were the physically unfit, teachers in our medical schools, and those engaged in public health services.

Among the current drug shortages was that of atropine, practically all of which had been imported in former years. Now the shortage had become acute. Eli Lilly and Company, back in 1912, had begun some experiments in the growing of belladonna in this country and in 1915 put out the first of that product to be grown and processed in this country. They also were experimenting with the production of hyoscyamine, from the Jamestown weed, a weed quite familiar to Indiana folk and commonly growing about barn yards, etc. (This weed is better known to Hoosiers by the name of "Jimson weed.") This company gathered 1,600,000 pounds of this herb, in the green stage, for processing during one year.

UNDER THE CAPITOL DOME

MILK CONDITION REPORT

John Taylor, chief of the dairy products division of the Indiana State Board of Health, reports that the 1941 Dairy Law has resulted in little, if any, progress in the elimination of unfit milk and cream for manufacturing purposes. Instead of a decrease, there has been an increase in the amount of milk containing "filth," according to the health board official.

He said that the lowering of quality may be attributed to the milk diversion program. Milk producers were urged to sell their products to plants manufacturing cheese, evaporated milk, and milk powder rather than to sell their cream to creameries for buttermaking. The dairy products chief said that during the past year the amount of butter seized as unfit for human consumption increased from 2,580 pounds during the fiscal year ended June 30, 1941, to 15,799 pounds during the last fiscal year. It was explained that competition for milk, resulting from lend-lease requirements and war needs, caused the buttermakers to have to buy more cream from small farms not equipped with sanitary facilities.

Under the 1941 Act, which provides for promulgation of state board orders governing the sanitation of milk products plants, the sanitation and production of milk and the operation of milk products distributors, a large number of permits have been issued, as follows: 1,517 operators of milk routes, 530 operators of cream routes, 62 operators of combination milk and cream routes, 745 operators of cream-buying stations, 614 operators of milk products plants, 328 operators of counter freezers, and 529 dairies.

Six sanitarians have devoted full time to manufactured milk products, inspecting the sanitary conditions existing in creameries, cheese plants, evaporated milk plants, powdered milk plants, and cream-buying stations. Sediment tests were made on incoming milk.

The percentage of milk containing an excessive amount of filth, as shown by sediment tests, was 5.8 for the calendar year of 1941, compared with 4.6 for the same period in 1940. The percentage of unfit cream examined during the same period in 1941 was 3.2, compared with 1.8 during 1940.

HELPING THE BLIND

Arthur H. Ortmeyer, Indianapolis insurance man and versifier, has interested the State Department of Public Welfare in a plan by which he believes life would be safer for blind persons. The latest issue of the welfare department's magazine, *Public Welfare in Indiana*, carries an item about his plan.

Mr. Ortmeyer believes "that the life of the blind will be considerably less hazardous if county welfare directors will contact local police officers, especially in the large cities, and urge them to become alert in preventing merchants and others from placing objects on sidewalks, which may be stumbled into by sightless persons, with possible resulting injury," the publication said.

Mr. Ortmeyer discussed his idea with Virgil Sheppard, director of the Division of Public Assistance of the Indiana Department of Public Welfare, and Mr. Sheppard already has talked it over with Michael Morrissey, chief of the Indianapolis Police Department.

Mr. Ortmeyer has written extensively for the blind, and his verses have been translated into Braille in England, Canada and other places, as well as here in America.

MISS JACOBS APPOINTED TO EMERGENCY POST

The appointment of Miss Ethel R. Jacobs, acting director of the Bureau of Public Health Nursing of the Indiana State Board of Health, as nurse deputy of the Emergency Medical Service of the Indiana State Defense Council has been announced by Clarence A. Jackson, state director of the council. Miss Jacobs will serve as nurse deputy without remuneration and will continue her duties as acting director of the Bureau of Public Health Nursing. In her volunteer capacity Miss Jacobs will assist Dr. John W. Ferree, state health commissioner and state chief of the Indiana Emergency Medical Service, in organizing nurses for emergency duty in case of enemy action or a natural catastrophe. She will work in close coöperation with the county chiefs of emergency medical service of county civilian defense councils.

BECAUSE THE FRENCH LICK SESSION IS IN PROGRESS
WHILE THIS ISSUE IS ON THE PRESS,
REPORTS OF MEETINGS AND CONVENTION NOTES WILL BE
PUBLISHED IN THE NOVEMBER ISSUE.

News Notes

Dr. J. L. Allen, of Greenfield, has been named as coroner for Hancock County.

Dr. Donald L. Miller, of Twelve Mile, has established an office at Remington.

Dr. Henry W. Greist, formerly of Monticello, but for many years a resident of Alaska, has reopened an office in Monticello "for the duration."

Dr. William Maxwell Sholty, of Lafayette, and Miss Mary M. Morrow, of Indianapolis, were married in Indianapolis on August seventh.

Dr. J. W. Herr, formerly of Millhousen, is now located in Mount Vernon, and has been appointed examiner for Co. F, Indiana State Guard.

Dr. Ivan E. Carlyle, practicing physician at Sedalia for several years, has moved his offices to Michigantown.

Dr. Charles Finch Martin, of Logansport, and Miss Alta Ruth Fox, of Indianapolis, were married August 15, 1942, in the North Methodist Church, Indianapolis.

Dr. H. B. Gable, of Monticello, has been named city health officer, to serve the unexpired term of Dr. W. V. Morris, who is now with the armed forces.

Dr. Herbert Brumer, formerly of Clinton, Iowa, has joined the staff of the Clinic Hospital at Michigan City as obstetrical specialist and assistant surgeon.

Dr. Benjamin E. Duke, of Decatur, has been appointed a member of the city board of health to succeed Dr. Palmer O. Eicher, who is now with the United States Army.

Dr. C. C. DuBois, of Warsaw, has been appointed city health officer, to succeed Dr. George Schlemmer, who is now in the Medical Corps of the United States Army.

Dr. William B. Wood, of Princeton, has moved to Oakland City where he will continue practice in the office of his son, Dr. Russell W. Wood, who is entering military service.

Dr. Hubert M. English and Dr. Byrum W. Harris, both of Gary, have been appointed members of the Gary Board of Health.

Dr. Stephen D. Malouf, who has been attending the Ann Arbor, Michigan, University hospital, has returned to his practice in Peru.

Dr. James W. House, of Bruceville, has been appointed as physician for the Pennsylvania Railroad Company for Bicknell.

Dr. Edgar H. Weber, of Evansville, has been appointed to the city board of health to succeed Dr. E. K. Denzer, who resigned to enter military service.

Dr. J. K. Hawes, of Columbus, has been made secretary of the city board of health, to succeed Dr. Robert B. Hart, who has been appointed director of the local venereal disease clinic.

Dr. W. T. Lawson, county health officer and secretary of the Hendricks County Medical Society, celebrated his ninety-third birthday on September third. A birthday cake was the chief feature of the family dinner. Dr. Lawson is still active in his profession.

Because of the enlistment of doctors in the armed forces, three new officers have been named for the Wabash County Medical Society. Dr. Fred M. Whisler, of Wabash, was named president; Dr. Gordon Kidd, of Roann, vice-president; and Dr. O. G. Brubaker, of North Manchester, secretary.

The International Medical Assembly will gather at the Palmer House, in Chicago, October 26-30, for their twenty-seventh annual meeting. This has come to be one of the outstanding postgraduate meetings of the country and is open to all members of organized medicine. The secretary of the group is Tom B. Throckmorton, Des Moines, Iowa.

Two new members have been appointed by Governor Schricker to the Indiana State Board of Medical Registration and Examination, to fill vacancies caused by resignation of members who have entered the armed forces. Dr. John Webb, of Indianapolis, will succeed Dr. H. W. Eikenberry, of Peru; and Dr. Paul Tyndall, of Shelbyville, will succeed Dr. G. T. Bowers, of Fort Wayne.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY EXAMINATIONS

The next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on Saturday, February 13, 1943, at 2:00 P. M. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year. All applications must be in the office of the Secretary by November 16, 1942. For further information and application blanks, address Dr. Paul Titus, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

Four Indiana medical men attended the school held at the University of Cincinnati July 24-26 on the subject of "Medical Aspects of Chemical Warfare": Dr. R. N. Harger of Indianapolis, Dr. A. W. Ratcliffe of Evansville, Dr. Louis W. Spolyar of Indianapolis, and Dr. Harold M. Trusler of Indianapolis. These men were invited to attend this special school, with the thought in mind that they would be made available to teach the subject in the local universities. They are also available to present this subject to the county medical societies.

The Kentucky State Department of Health announces that its School of Laboratory Technique has been enlarged and that the enrollment peak has been doubled; that they now can accommodate fifty young women in these classes. The War Production Board has given permission for this step and the Director, Dr. L. H. South, advises that he will be pleased to have applications from Indiana young women. Graduates are in constant demand, the salaries ranging from $100.00 upward, most of the positions affording complete maintenance in the various institutions in which employment is had. Full details may be obtained from Dr. L. H. South by addressing him at 620 South Third Street, Louisville, Kentucky.

WARNING

A man giving his name as J. C. Taylor, who said that he represented Taylor & Company of 831 Wabash Avenue, Chicago, has called at the office of some Indiana physicians and solicited orders for surgical instruments, giving a story of a bankrupt sale. He gave a bill of sale and collected cash for the order, promising to send the goods within two or three days. The material was never delivered and investigation revealed no such firm. One physician on whom he called described him as follows: "He was an elderly, honest-appearing individual, was about 5′ 6″ in height, weighed around 140 pounds, was dark complexioned, and he wore rimless glasses and a dark grey suit." He was wearing a pin of a well-known fraternal order.

ACCEPTS NATIONAL POST

Howard B. Mettel, M.D., Indianapolis, chief of the Bureau of Maternal and Child-Health, Indiana State Board of Health, and acting director of the Division of Services for Crippled Children of the Indiana State Department of Public Welfare, has been approved by Chairman Mr. Norman H. Davis of the American Red Cross as director of the Medical and Health Services of the midwestern area, with office headquarters at St. Louis, Missouri. Doctor Mettel has just completed the orientation course at the national headquarters of the American Red Cross. He is to report for active duty in St. Louis on October 1, 1942.



Dr. Mettel

The duties of this position will be the administration of the Red Cross Medical and Health Service Program through local chapters located in eighteen midwestern states. Chief of these duties are disaster relief, the blood donor program, and offering medical consultation to the other services of the American Red Cross, such as nutrition, nurses' aid, first aid program and the general nursing program — all of which are now being sponsored by the American Red Cross. One of Doctor Mettel's immediate duties will be to bring about coördination and coöperation between local and state governmental agencies charged with the responsibilities of Civilian Defense and Civilian War Aid. He will interpret the services of the Red Cross to these agencies. Likewise, he will interpret the integration of the medical and health services, for many years organized and presented by the Red Cross in times of disaster, to all health and welfare agencies.

Doctor Mettel came to Indianapolis in 1925 and has since been actively engaged in private pediatric practice. In 1936 he organized and promoted the state-wide program of the Bureau of Maternal and Child-Health of the Indiana State Board of Health. In February, 1941, he was requested to administer the Crippled Children's Program of the State Department of Public Welfare and has acted as its temporary acting director since that date.

In addition to the above duties he was active in the affairs of the Indiana Medical Center, where he served as assistant professor of pediatrics, secretary of the committee of postgraduate education, and a member of the admissions committee of the Indiana University School of Medicine. He was also an instructor in "medical information" at the Indiana University Extension Division, School of Social Service. Until recent years he served as secretary of the Indianapolis Medical Society.

Doctor Mettel has closed his private office at 614 Hume-Mansur Building and will devote the remain-

der of the month of September to the public health programs of the Indiana State Board of Health and the State Department of Public Welfare. On October first he will report for active duty to the midwestern office of the American Red Cross, 1709 Washington Avenue, St. Louis, Missouri. Although Doctor Mettel will be on full-time duty with the American Red Cross, he will continue his clinical interest in the field of child-health by becoming a volunteer instructor at the Children's Hospital, Washington University, St. Louis, where he was a staff member before locating in Indianapolis.

MEDICAL OFFICERS NEEDED

To fill appointments for rotating internship and for psychiatric residents in St. Elizabeth's Hospital, federal institution for the treatment of mental disorders in Washington, D.C., the Civil Service Commission will accept applications for Junior Medical Officers until the needs have been met. The positions pay $2,000 a year. The rotating internship consists of one year of rotating service, including medicine, surgery, psychiatry, laboratory, pediatrics (affiliation), and obstetrics (affiliation). No written test is required and there are no age limits.

Persons interested are urged to secure the desired announcements and proper application forms from the Commission's representatives at first- and second-class post offices.

FIRE PREVENTION WEEK, OCTOBER 4-10

Fire Prevention Week is observed every year during that week in which October 9, the anniversary of the Chicago Fire, occurs. But this year the war has given Fire Prevention Week unusual significance.

The Nation is preparing to defend itself from fire that may be caused by incendiary bombs. Equally vital is the need to prevent the slowdown of war production by fires that may result from sabotage or ordinary causes. And, at this time when we are facing material shortages, replacements in the home and elsewhere must be reduced to a minimum.

The seriousness of the situation has been recognized by every organization concerned with fire safety, and, for the first time, the sponsors of Fire Prevention Week are joined, this year, by the U. S. Office of Civilian Defense which is charged with civil protection in wartime.

By virtue of the President's proclamation, the U. S. Office of Civilian Defense now calls upon the entire Nation to heed the danger of fire, a danger which threatens our lives, menaces the security of our homes, and waits, ready in an instant, to sabotage our war industries.

SCIENTIFIC SESSION OF THE AMERICAN ACADEMY OF PHYSICAL MEDICINE

The American Academy of Physical Medicine will hold its twentieth annual scientific session at the Hotel Statler, Boston, October 14 to 17, 1942. The program will be composed of clinical and scientific presentations involving techniques of importance in wartime medicine.

Topics of the discussions and demonstrations include Physical Medicine in Relation to Aviation Medicine, Physical Education, Habilitation, Rehabilitation, First Aid, and War Injuries, as well as consideration of the use of physical agents in injury and disease falling within the scope of various medical specialties. There will be symposia on Poliomyelitis and Electrosurgery. Encephalography, Electroshock, Fever Therapy, and Other Special Procedures will be discussed by outstanding authorities.

Physicians are invited to attend without registration fee. A copy of the official program can be obtained from the Secretary-treasurer, Herman A. Osgood, M.D., 144 Commonwealth Avenue, Boston, Massachusetts.

ANNOUNCEMENT OF POSTGRADUATE PROGRAMS IN OBSTETRICS

The Indiana State Board of Health, in cooperation with the Indiana University School of Medicine and the Indiana State Medical Association, will again offer postgraduate instruction in obstetrics during the coming year. As in the past, both intramural and extramural courses will be given if sufficient interest is shown.

It is recognized that during the present emergency it may be difficult for physicians to leave their practice for intramural studies, so that no regular schedule of courses has been arranged. The facilities of Indiana University Medical Center will, however, be available for such intramural courses as given in the past, if a sufficient number of physicians make application. Individual physicians who wish to make a brief review of obstetrics are encouraged to spend several days at the Indiana University Medical Center, where faculty members will be glad to give personal instruction and consultations.

A program of a series of extramural lectures will also be given groups of two or three county societies upon request. These lecture series may be arranged for evening sessions during consecutive four to six weeks periods, and will review the fundamental procedures in obstetrics and illustrate their performance with motion pictures.

Arrangements for the courses should be made as far in advance of the course as possible. Please address all inquiries regarding these programs to Dr. Carl P. Huber, Coleman Hospital, Indiana University Medical Center, or at the Indiana State Board of Health.

ELEVENTH COUNCILOR DISTRICT MEETING

The Eleventh Indiana Councilor District Medical Association will hold its next meeting at Peru on October 21, 1942, as guests of the Miami County Medical Society. All physicians of the state are welcome.

CONFERENCE ON VENEREAL DISEASE CONTROL NEEDS IN WARTIME

Venereal disease and America's war effort will be discussed by high-ranking medical officers of the War and the Navy Departments, prominent physicians, health officers and others at a conference in Hot Springs National Park, Arkansas, October 21-24, 1942. Headquarters will be at the Arlington Hotel.

The conference will be held under the auspices of the United States Public Health Service in conjunction with the Eighth Annual Meeting of the American Neisserian Medical Society. Surgeon General Thomas Parran will preside. State and local health officers, venereal disease control officers, practicing physicians, and all others engaged in venereal disease control activities are urged to attend.

Subjects for discussion will include venereal disease control measures influencing the war effort, epidemiology of syphilis and gonorrhea—1942, wartime venereal disease control education, research influencing the wartime venereal disease control program, and technics of venereal disease education.

AMERICAN BOARD OF OPHTHALMOLOGY EXAMINATIONS

Because of the War Emergency, the American Board of Ophthalmology announces the following additional examinations:

New York City—December 13th to 16th
Los Angeles—January 15th and 16th

At the last meeting it was decided to cancel the 1943 written examination, to include in the oral examination all of the subjects previously covered by the written examination, and to temporarily dispense with the requirement of case reports. The oral examination will probably require two or three days and will cover the following subjects:

External Diseases—Slit Lamp
Ophthalmoscopy
Histology—Pathology—Bacteriology
Ocular Motility
Refraction—Retinoscopy
Practical Surgery
Anatomy and Embryology
Perimetry
Therapeutics and Operations
Optics and Visual Physiology
Relation of the Eye to General Diseases

Formal application on the proper blanks for the December and January examinations must be filed with the Secretary not later than November first. Write to American Board of Ophthalmology, 6830 Waterman Avenue, St. Louis, Missouri.

Dr. Oran A. Province, chairman of the Franklin Defense Recreation Committee, has been appointed by Governor Schricker as one of Indiana's representatives at the War Recreation Congress to be held in Cincinnati September twenty-eighth inclusive of October second, under the auspices of the National Recreation Association.

PEPTIC ULCER FILM AVAILABLE

There is now available for free showings before groups of physicians the first complete movie film on peptic ulcer, in color and with sound track. The film is entitled "Peptic Ulcer" and was produced under the direction of the Department of Gastroenterology of the Lahey Clinic of Boston. The American College of Surgeons has awarded its seal of approval to the film. Running time of the film is forty-five minutes, 1,600 feet of 16 mm. film, and it covers a presentation of the following problems of peptic ulcer: pathogenesis; diagnosis; treatment; pathology; complications, including obstruction, hemorrhage, and perforation; gastric ulcer, surgery, and jejunal ulcer.

Arrangements for a showing of the film may be made by writing to the Professional Service Department of John Wyeth and Brother, Inc., Philadelphia, who will provide projection equipment, screen, film, and operator for medical groups without charge.

QUININE SALES

Mr. H. V. Darnell, secretary of the Indiana Pharmaceutical Association, has submitted the following information, which is of interest to the medical profession:

The War Production Board has warned that all quinine and totaquine stocks are covered by sales restrictions and may not be sold except as an antimalarial agent. Similar restrictions apply to cinchonine, cinchonidine and quinidine. The last may also be sold for treatment of cardiac disorders.

"Although the W. P. B. regulation does *not* place the dispensing of quinine on a 'prescription only' basis, it does place upon the pharmacist the responsibility of not selling quinine except for antimalarial purposes. Rather than assume the responsibility of questioning purchasers at length regarding the use of quinine, many pharmacists have ceased all sales of quinine, except on prescriptions, and are voluntarily returning surplus stocks to either the wholesaler or manufacturer. In order to replenish his stocks, the retail pharmacist must now provide his wholesaler with an affidavit stating that the quinine purchased will be sold only for anti-malarial purposes.

"Physicians purchasing quinine from retail pharmacists are required to furnish the above-mentioned affidavit to the seller. Physicians' prescriptions for quinine should bear the statement "for antimalarial use"—otherwise the pharmacist will be at a loss in determining whether or not he has a legal right to fill the prescription."

Military News

Captain J. W. Thom, formerly of Gosport, is now stationed in Hawaii.

Captain C. V. Rozelle, formerly of Hammond, is now with the Army Air Base at Topeka, Kansas.

Captain J. E. Alexander, former Evansville physician, is now stationed at Bowman Field, Kentucky.

Lieutenant Commander H. H. Ash, formerly of Lafayette, is now with Mobile Hospital No. 5, at San Francisco.

Dr. William Wymond Kreible, formerly of Brazil, is now on duty as a first lieutenant at Fort Bragg, North Carolina.

Lieutenant W. L. Green, formerly of Columbus, is now with the Navy Medical Corps at an island base in the Pacific.

Dr. Charles E. Stouder, Gosport physician, is now a commanding officer of the 215th General Hospital, Camp McCoy, Wisconsin.

Captain Russell Edward Havens, formerly a Cicero doctor, is now with the 26th Medical Training Battalion at Camp Grant, Illinois.

First Lieutenant William J. Warn, formerly of Milan, is now stationed at the Air Corps Gunnery School, McCarron Field, Las Vegas, Nevada.

Captain Bennett Kraft, formerly of Indianapolis, is now on duty at Station Hospital No. 58, Camp Gruber, Oklahoma.

Lieutenant V. K. Stoelting, formerly in practice at Winchester, is now with the 15th Cavalry Regiment, Fort Riley, Kansas.

Major George R. Dillinger, of French Lick, left for Atlanta, Georgia, on September fifteenth, where he will serve at the Lawson Hospital.

Colonel Walter M. Stout, formerly of New Castle, has been named commanding officer of the station hospital at Camp Shelby, Mississippi.

Dr. George W. Seward, North Manchester physician, is now on duty as a first lieutenant in the Air Corps at Patterson Field, Ohio.

Lieutenant C. J. Guild, formerly of Garrett, has been transferred from Camp Devens to Camp Edwards, Massachusetts.

Major Karl Beierlein, formerly of Fort Wayne, is now on active duty at the Army-Navy General Hospital, Hot Springs, Arkansas.

First Lieutenant Louis W. Nie, formerly of Huntington, is now stationed with United States Examining Board No. 4, at Akron, Ohio.

Dr. M. C. Salb, formerly of Jasper, has been commissioned in the Army Air Corps and is now stationed at Bowman Field, Kentucky.

Dr. Jesse R. Logan, formerly of Evansville, has been commissioned a captain in the Medical Corps of the United States Army, at Fort Benjamin Harrison.

Dr. Thomas L. Keefe, Logansport physician, has been commissioned a captain in the Medical Corps and is now on duty at Maxwell Field, Montgomery, Alabama.

First Lieutenant Robert J. Miller, Evansville surgeon, is now on duty as assistant to the chief of surgical staff at the Station Hospital at Baer Field, Fort Wayne.

Dr. Hugh K. Thatcher, Jr., Indianapolis physician, has been commissioned a first lieutenant in the United States Army Medical Corps, Camp Carson, Colorado.

Major A. N. Ferguson, of the Army Medical Corps, formerly with the Duemling Clinic at Fort Wayne, is now on duty at Fitzsimons General Hospital, Denver, Colorado.

Dr. David A. Morrison, formerly of Kokomo, has been commissioned a lieutenant commander in the United States Medical Corps, and is now on duty at the Navy Air Base near Peru.

Captain James S. McElroy, formerly of New Castle, has been transferred from Fort Benjamin Harrison to Camp Bowie, Texas, where he acts as field hospital surgeon.

Dr. Charles Holland, well-known Bloomington physician, has been commissioned a first lieutenant in the Army air forces and is receiving his preliminary training at Lincoln, Nebraska.

Lieutenant L. D. Denton, formerly of Greentown, is now stationed at Camp Campbell, Kentucky, with the Medical Corps of the Fifth Service Command.

Lieutenant Colonel George E. Iterman, formerly of New Castle, has been advanced to camp surgeon at the 1st Armored Force desert training headquarters, Camp Young, Indio, California.

First Lieutenant Edward C. Lidikay, formerly of Ladoga, is now on duty in the Medical Department at Gulfport Field, Mississippi, America's newest Army air force airplane mechanics' school.

Captain Kenneth Thornburg, of Indianapolis, who is serving in the Medical Corps, has been transferred from Fort Custer to the 50th Station Hospital at Camp Lee, Virginia.

Lieutenant Colonel I. H. Willett, formerly of Fort Wayne, has been advanced to colonel in the United States Army Medical Corps and is now chief surgeon at a Hawaiian fort.

Commander E. Rogers Smith, Indianapolis physician, has been transferred from the National Naval Medical Center at Bethesda, Maryland, to the United States Naval Hospital, Mare Island, California.

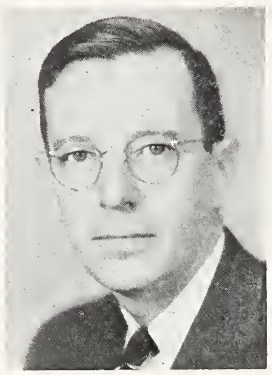
Dr. John D. Winebrenner, former head of the district office of the State Board of Health for Camp Atterbury, after serving for a time at Fort Knox, Kentucky, has been transferred back to Camp Atterbury.

Major Norman E. Booher, formerly of Indianapolis, has been appointed commanding officer of the station hospital at Fort Benjamin Harrison. He succeeds Lieutenant Jesse W. Bowers, who has been transferred to Camp Breckenridge, Kentucky.

Dr. Fielding P. Williams, formerly of Dale, Indiana, is now a captain in the Army Medical Corps, stationed in the Hawaiian islands. His brother, Charles E. Williams, recently commissioned a lieutenant in the Medical Corps, is now on duty in South Carolina.

Lieutenant Dale Dickson, M.D., formerly of Letts, Indiana, is a member of a class enrolled in aviation physiology at the School of Aviation Medicine in Texas on August tenth. The course treats of the effects of lowered barometric pressure on personnel, anoxia and the effect of flight on man, the operation of low pressure chambers, the theory and practical use of oxygen equipment, and the conduct of high altitude indoctrination and classification.

Lieutenant Colonel Samuel F. Seeley, of the Medical Corps of the United States Army, has been recalled from duty with the Procurement and Assignment Service by the Surgeon General of the United States Army, following the recommendation that all regular Army medical officers be relieved insofar as possible of administrative positions that might be carried on by reserve line officers. Colonel Seeley has been assigned as executive officer to the nationally known "Greenbrier" resort at White Sulphur Springs, West Virginia, which has been purchased by the government and will be converted into a 2,000-bed army hospital.



Colonel Seeley

All of Sam Seeley's many friends congratulate him and wish him the best of luck in his new assignment, which is one of the choicest in the Army.

Following is a message received from the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians in regard to Colonel Seeley:

"The Directing Board of the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians has formally expressed its appreciation of the services rendered by Colonel Sam F. Seeley, who has been transferred to military duty. Following is the text of the resolution adopted:

"The transfer of Lieutenant Colonel Sam F. Seeley from his connection with the Procurement and Assignment Service to active military duty causes a great loss. Colonel Seeley, who has acted as Executive Officer since the beginning of this Service, has been transferred to military duty, which is in keeping with the policy recently adopted by the War Department. His training and experience with the Medical Corps of the Army in his professional capacity amply justifies such a step.

"The Directing Board of the Procurement and Assignment Service wishes to take this opportunity of expressing to the Surgeon General of the United States Army its very deep appreciation for the valuable service which Colonel Seeley has rendered during its period of organization and functions.

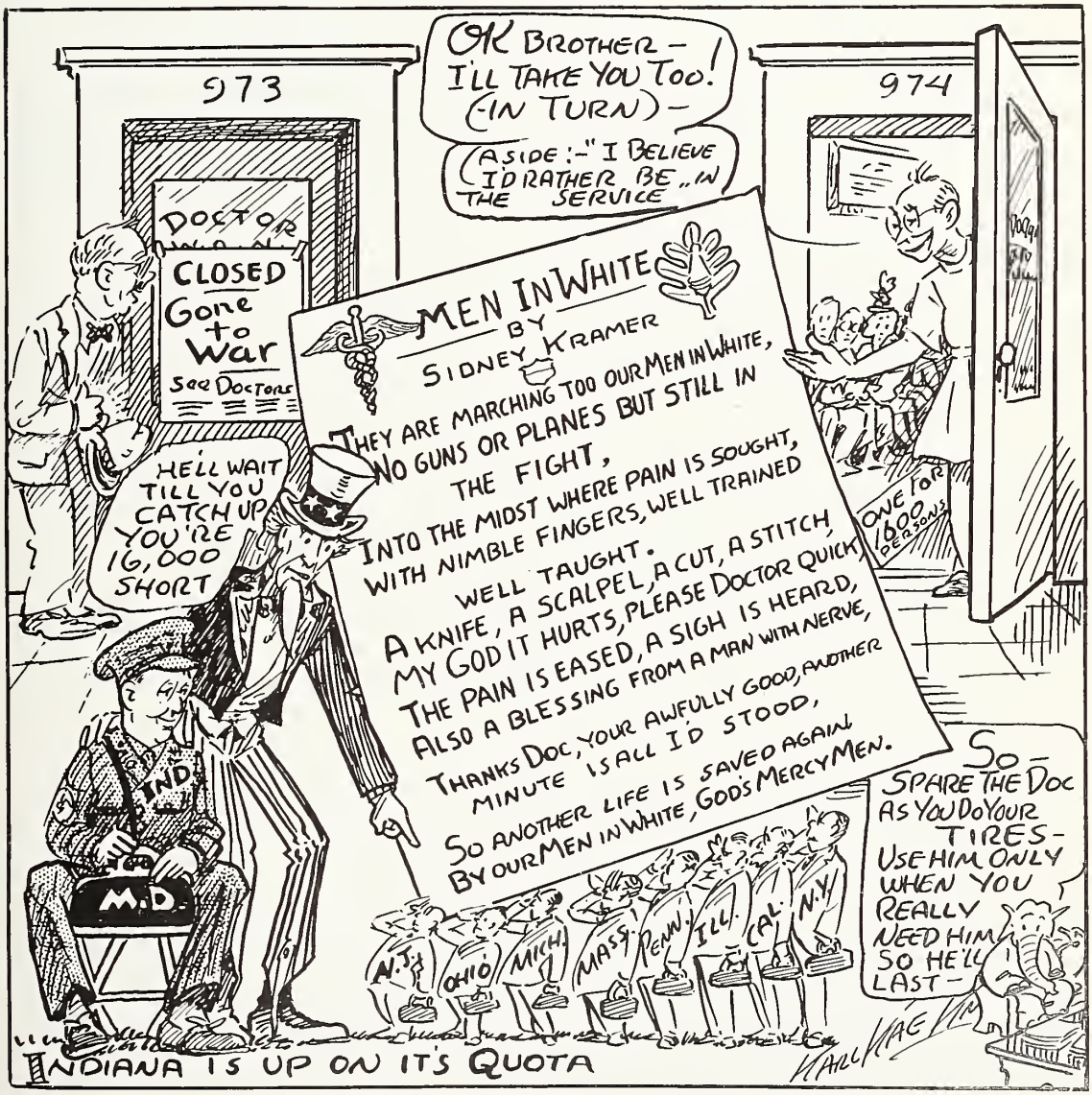
"The Directing Board expresses to Colonel Seeley its deep appreciation for the great sacrifice which he has made in dislocating himself from actual military duty to serve with us in an executive capacity. He has been most unselfish, and has given unstintingly of his time, energy, and patience in helping to solve

many of the problems connected with the functioning of the Procurement and Assignment Service. He has not only labored faithfully at our office in Washington, but he has traveled over the United States contacting many of his professional confreres and explaining to them the purpose for which the Procurement and Assignment Service was organized. His services have been most valuable and have helped to take us a long way in accomplishing the objectives for which it was created.

"The Directing Board expresses to Colonel Seeley its gratitude and thanks for his unselfish devotion to the organization of the Procurement and Assignment Service and wishes for him the greatest success in his new assignment.

Frank H. Lahey, M.D., *Chairman*
Harvey B. Stone, M.D.
Harold S. Diehl, M.D.
James E. Paullin, M.D.
C. Willard Camalier, D.D.S."

WHERE ONCE THERE WERE TWO—NOW THERE IS ONE . . . OR LESS



The above is reprinted from the Evansville Courier of July 15, 1942, through the courtesy of Mr. Karl Kae Knecht.

INDIANA UNIVERSITY NEWS NOTES

Plans have been completed at the Indiana University Medical Center for the formation of a school for physiotherapy technicians to help meet the demand of such specialists by the armed forces. Dr. W. D. Gatch, dean of the University medical school, has appointed Dr. Edwin N. Kime, member of the faculty and a past president of the American Physical Therapy Association, to organize and head the school. This will be a six months' course, a total of 1,000 hours, including 200 hours of clinical practice following 800 hours of theory and laboratory work. Students eligible for admission include graduates of approved schools of nursing, graduates in physical education, and persons who have had two years of college work which included general physics, general biology and general chemistry.

Graduates are eligible for a United States Civil Service rating of apprentice physiotherapy aid and, therefore, become eligible for service in the armed forces. After six months of satisfactory experience the student may be promoted to the rank of physiotherapy aid by the United States Civil Service Commission and may be registered by the American Registry of Physical Therapy Technicians.

Dr. Gatch said that the course is expected to aid not only the demands of the armed forces but also that of the medical center. No fee other than the registration and graduation fees will be charged.

Seventy-seven student nurses, the largest number in history, have been admitted as members of the September class in the Indiana University Training School for Nurses, a part of the University's medical center in Indianapolis, according to Miss Cordelia Hoeflin, director of the school.

The entering class, 54 per cent larger than the normal class, Director Hoeflin said, will help meet the need for student nurses to replace graduate nurses called by the armed forces, a need estimated by the Federal Public Health Service at 55,000 student nurses enrolled by next July first. The Indiana University Nurses Training School, at government request, not only expanded its September class but will admit an extra class of fifty student nurses next February.

Members of the class admitted this month were announced by Director Hoeflin, as follows:

Dorothy Alexander, Franklin; Lois Barnet, Muncie; Billie Jean Bassett, Angola; Vera Beehler, Bremen; Katherine Beeker, Columbus; Margaret Boren, Princeton; Anna Brink, Evansville; Donna Britton, Franklin; Betty Browning, Indianapolis; Alice Bryan, Gaston; Marguerite Butts, Clinton; Margaret Colglazier, Salem; Doris Connor, Anderson; Mae Costelow, Indianapolis; Doris Coughlen, Indianapolis; Margaret Cox, Fort Wayne; Ruth Danner, Indianapolis; Josephine Davis, Culver; Thelma DeBoer, Indianapolis; Dorothy Dennis, Beech Grove; Mary Faris, Bloomington; Mary Franklin, Spencer; Ruth Gottschall, Boswell; Jeanne Gronseth, Crawfordsville; Lois Guyant, Almond, Wisconsin; Joan Harris, Richmond; Mary Ann Hensley, Bloomington; Joyce Hilt, Milroy; Mary Ellen Hummel, Kokomo; Naomi Ish, Waterloo; Jean Jenssen, Beech Grove; Arvilla Johnson, LaPorte; Marianne Joss, Fort Wayne; Betty Kestle, Monticello; Jeannette LaGrange, Princeton; Rosemary Landaw, Goshen; Mary Lou Leffler, Shelbyville; Marjorie Lennart, Fort Wayne; Ruth Leonard, Elkhart; Patricia Liehr, Indianapolis; Ann Lybrook, Galveston; Jane McElhinney, Bloomington; Dorothy Medich, South Bend; Athalin Menefee, Vincennes; Merilyn Meyer, Indianapolis; Charlotte Moore, Columbia City; Eileen Morey, Martinsville; Louise Murphy, Nashville; Joan Murray, Logansport; Betty Noffke, Indianapolis; Betty Nusbaum, Cass; Virginia Parrish, Indianapolis; Willette Penn, Kokomo; Mary Pesch, Plymouth; Selena Peterson, Rochester; Marjorie Pluess, Indianapolis; Betty Jane Prentice, Hall; Louise Reeve, Indianapolis; Rite Reynolds, Indianapolis; Audrey Ryan, Brownsville; Elizabeth Sexton, Rushville; Victoria Ster, Columbus; Letha Stuart, Columbus; Betty Tharp, Fountain City; Dorothy Turley, Fowler; Nancy Van Matre, Indianapolis; Mary Lou Van Nuys, Thorntown; Geraldine Way, Ossian; Frances Weekley, Cortland; Anita Wells, Indianapolis; Betty Wiley, Rushville; Guinevere Woodward, Bluffton; Ida Yeager, Terre Haute; Ione Young, Alexandria, and Kathleen Yount, Darlington.

ABSTRACT: SAYS MANY MORE ACCURATE SURVEYS OF VITAMIN DEFICIENCY NEEDED

A survey of approximately 400 consecutive patients admitted to the clinic wards of Stanford University Hospital with reference to inadequate diet and signs of vitamin deficiency showed that approximately one fourth had been taking an inadequate diet but that the occurrence of clinical signs of vitamin deficiency was very low, Marcus A. Krupp, M.D., San Francisco, reports in *The Journal of the American Medical Association* for August 29. Of those with inadequate diets, only 11.4 per cent showed definite signs of vitamin deficiency. Only 2 instances of clinical vitamin deficiency were detected among 297 patients with adequate diets, and in the entire group the incidence of definite vitamin deficiency disease was 3.1 per cent. Dr. Krupp says that the survey shows that even with a serious disease, such as cancer, deficiency disease does not readily supervene provided the diet remains adequate.

"Recent surveys of vitamin deficiency disease," he explains, "have on the whole shown a disturbingly high incidence. Most of these reports have been made by careful well-trained investigators, and the results seem dependable. However, it is important to take into account the locality in which the survey is made, the particular population group and the criteria for diagnosis. Some of the statements made in the lay press, on the other hand, must be interpreted with caution, such as those claiming that 50 per cent of the employees in a certain factory in southern California had clearcut evidence of one or more sorts of vitamin deficiency. It is on this account that many more accurate surveys should be made in various parts of the country. . . ."

Deaths



Lieutenant Kveton

DIED IN MILITARY SERVICE

Lieutenant Emil Nicholas Kveton, M.D., of Fort Wayne, who entered the Medical Corps of the United States Naval Reserve last January, was killed in action at sea on August ninth, according to word received at Fort Wayne from the War Department. Dr. Kveton is the first Indiana physician reported to us as having died in action during World War II.

Dr. Kveton was twenty-nine years of age and was a graduate of the Loyola University School of Medicine, Chicago, in 1938.

He was a member of the Fort Wayne (Allen County) Medical Society, the Indiana State Medical Association, and the American Medical Association.

Uryal C. Ambrose, M.D., of Cumberland, died September third, at the age of seventy-nine. He graduated from the Louisville Medical College, Louisville, in 1887.

* * *

Alva A. Young, M.D., of Hammond, died on August ninth, at the age of sixty-one. He graduated from the Central College of Physicians and Surgeons, Indianapolis, in 1905.

* * *

Robert P. Hackley, M.D., of Medaryville, died at his home on August thirtieth, at the age of seventy-one. He was a graduate of the Louisville National Medical College, Louisville, in 1900.

* * *

Arthur J. Kleiser, M.D., formerly of Waveland, died on August twentieth. He was eighty years of age. He graduated from the College of Physicians and Surgeons of Baltimore, in 1885.

* * *

Joel D. Sturdevant, M.D., of Noblesville, died on August thirty-first. He was sixty-four years of age. He served as a captain during World War I. He graduated from the Medical College of Indiana, Indianapolis, in 1904. He was a member of the Hamilton County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

Royal S. Fisher, M.D., of Arcadia, aged sixty-nine, died on August twenty-sixth. He graduated from the University of Illinois College of Medicine, Chicago, in 1906.

* * *

Joseph Rubsam, M.D., of Logansport, died August seventh, at the age of seventy-five. He was especially interested in surgery. Dr. Rubsam was a member of the Cass County Medical Society, an honorary member of the Indiana State Medical Association, and a Fellow of the American Medical Association.

* * *

Joseph E. Walther, M.D., of Rushville, died August twenty-eighth, at the age of fifty-nine. He graduated from the Indiana University School of Medicine, Bloomington, in 1912. He was a member of the Rush County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Joseph R. Dillinger, M.D., of French Lick, died August sixteenth, at the age of sixty-six. He graduated from the Hospital College of Medicine, Louisville, in 1903. Doctor Dillinger was especially interested in ophthalmology and otolaryngology. He served as a captain in the United States Army during World War I. He was a member of the Lake County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Societies and Institutions

INDIANA STATE MEDICAL ASSOCIATION

EVECUTIVE COMMITTEE

August 16, 1942.

Roll call showed the following present: C. A. Nafe, M.D., chairman; E. O. Asher, M.D.; M. A. Austin, M.D.; C. H. McCaskey, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney; and T. A. Hendricks, executive secretary. Dr. Asher acted as chairman during the morning session in the absence of Dr. Nafe.

Guest: C. R. Bird, M.D.

The statements of receipts and expenditures for June and July for the association committees and THE JOURNAL were approved.

Membership Report

Number of members Aug. 15, 1942.....	3203	(110 hon. mems.) (198 in service*)
Number of members Aug. 15, 1941.....	3179	
Gain over last year.....	24	
Number of members Dec. 31, 1941.....	3228	

* These 198 members paid no dues in 1942. To date refunds of dues have been made to 196 members in service, amounting to $1,041.67.

Treasurer's Office

The treasurer made an unofficial report in regard to the work of the Auditing Committee which met in Indianapolis on July 17 for an audit of the holdings of the association.

1942 Annual Session at French Lick, September 29, 30, and October 1, 1942

Commercial exhibit. 26 spaces sold; 8 to be sold.

Cancellations. Upon the motion of Dr. Austin, seconded by Dr. McCaskey, the committee went on record that no cancellations shall be accepted from firms after September 1.

The committee approved applications for space received from F. E. Young and Company, Chicago, and the C. B. Fleet Company, Lynchburg, Virginia.

Badges. The committee approved the purchase of badges for the meeting, the cost to be $39.55.

Program completed except for naming of speaker upon war medicine. Attempt is being made to obtain a speaker who has returned from England, or from one of the active fighting fronts, who can tell of medical work under actual fire.

Dr. Austin is to present the certificate of appreciation to Dr. A. M. Mitchell, 1941 president.

Banquet. The committee approved the selection of Felix Morley, president of Haverford College, Haverford, Pennsylvania, as the second speaker on the dinner program.

Special tables are to be set aside for the ex-presidents and their wives and the wives of those seated at the speakers' tables. Dr. Charles N. Combs is to be in charge of arrangements for these tables.

Dr. Shanklin's suggestion that the banquet be informal presented to the committee. The committee felt that as in the past this should be entirely optional with the individual.

Invitation for the state association to have a joint meeting with the Kentucky State Medical Association at Louisville received from Dr. E. L. Henderson, president. Although the committee appreciated the invitation, it felt that it is too late to arrange for a joint meeting at this time.

Additional letters received suggesting that the meeting should be cancelled or changed to Indianapolis. The committee voted to continue the plans for the meeting.

Notice received of the cancellation of the annual session of the Colorado State Medical Society.

Annual report of the Executive Committee approved.

Legislative, Legal and Social Security Matters

National

Copy of A.M.A. Federal Legislative Bulletin No. 18 distributed to members of the committee.

Local

Suggestion that the state lien law, which covers hospital bills, be extended to cover medical bills brought to the attention of the committee. The committee asked that Albert Stump, attorney for the association, study this matter and report upon the advisability of such action for consideration of the committee at its next meeting.

Organization Matters

The committee authorized changing the name of the state M-Day Committee to the War Participation Committee in order to conform with the title of the newly created American Medical Association committee. This was done upon the motion of Dr. Austin, seconded by Dr. McCaskey.

National Physicians' Committee. Literature and form letters from the National Physicians' Committee and letter from Dr. F. S. Crockett brought to the attention of the committee. The committee again felt that there should be no formal action on the part of the state medical association approving or disapproving the National Physicians' Committee, and that it should be left up to each individual physician as to whether or not he desires to support this organization.

Resolution passed by the Indiana Pharmaceutical Association recommending that an Advisory Council to the Indiana State Board of Health be formed "either by legislative action at the 1943 session of the Indiana General Assembly or by appointment of the Secretary of the Indiana State Board of

Health, and that a pharmacist ... said Advisory Council" brought to the ... n of the committee.

Request from the widow of a physici... who was drowned on June 30 for refund of dues ...rought to the attention of the committee. The committee approved refunding six months' dues in this case.

Question brought to the committee in regard to a local society filing charges against one of its members because he has not volunteered for service even though the procurement and assignment committee of his local society has indicated that he is available for service. The Executive Committee was of the opinion that a local society has no legal right to bring charges against any physician, because legally it is entirely a personal matter with a physician as to whether or not he volunteers for service. However, Selective Service has legal authority to induct any man into service.

Correspondence with a former medical student, who is requesting the state association to help him re-enter medical school, brought to the attention of the committee. The committee felt that this is not in the province of the Executive Committee or the state association, as the state association deals essentially only with the members of the Indiana State Medical Association, but that this is a matter for the Admissions Committee of the Indiana University School of Medicine. The committee suggested that a letter be written to this student informing him of the opinion of the committee.

Medical Economics

Material received from Planned Parenthood Federation of America, Inc., referred by the committee to Dr. Henry F. Nolting, chairman of the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health of the Indiana State Medical Association.

Medical Relief

Letter from Virgil Sheppard, director of the Division of Public Assistance of the State Department of Public Welfare, expressing the appreciation of the welfare department over the appointment of Dr. Asher to take the place of Dr. John Leffel upon the State Medical Aid Advisory Committee, received by the committee.

WPA reports for June and July brought to the attention of the committee.

War Medicine

(1) Outline of the program for obtaining physicians for industrial plants, suggested by Dr. Clarence Selby's committee, brought to the attention of the Executive Committee. This program follows:

"THE COMMITTEE ON INDUSTRIAL HEALTH OF THE PROCUREMENT AND ASSIGNMENT SERVICE IS REQUESTED TO VOTE ON THIS RESOLUTION:

"Whereas, The supply of industrial physicians of experience and training is rapidly becoming depleted; and

"Whereas, War industries are requiring an ever-increasing number of trained physicians not only for replacement of medical personnel but for the purpose of meeting the requirements of expanding plant populations; therefore

"Be It Resolved, That the Committee on Industrial Health hereby recommends to the directing board of the Procurement and Assignment Service:

1. Completion of the coding of all physicians ineligible for military service.
2. That lists of such physicians be placed in the hands of the state chairmen of procurement and assignment for transferral to the state medical society committees on industrial health to determine eligibility and capability for special training and placement in industry.
3. Creation by the Council on Industrial Health of the American Medical Association of training centers, using the combined resources of medical schools, bureaus of industrial hygiene and industrial medical departments.
4. Notification of industry that these steps are being taken to develop suitable replacements for able-bodied industrial physicians called to military service."

(2) Report made upon the program for the care of civilian population in war boom industries. This outline of principles to cover medical and dental care in these communities has been tentatively adopted by the Directing Board of the Procurement and Assignment Service and is to be presented to the War Participation Committee of the American Medical Association at Chicago on August 18.

Upon the motion of Dr. McCaskey, seconded by Dr. Austin, it was moved that a committee be set up *by the Procurement and Assignment Committee of the Indiana State Medical Association, with the advice of the Executive Committee of the Indiana State Medical Association, to conduct a survey into the medical needs of the civilian population in war boom industrial communities.*

(3) *Fees in the emergency.* Dr. C. R. Bird again spoke of the fact that mileage fees which are excessive are being charged in certain communities of the state for calls made into the rural districts. The committee suggested that further articles be printed in THE JOURNAL in regard to such practices and that Dr. Bird bring this to the attention of the House of Delegates at the French Lick meeting.

(4) Mr. Carl Wilde, president of the Indiana State Bar Association, in his presidential address made the following reference to the manner in which the medical profession is meeting the responsibilities placed upon it by the war:

"I feel impelled at this point to refer particularly to the work that has been done by

another profession in Indiana in respect to the war effort. It happens that my offices are immediately adjacent to those of the Indiana Medical Society and I have been privileged, therefore, to observe at first hand the work that has been done by that organization and by the physicians of Indiana in respect to meeting the needs of the armed forces for medical services. I can say advisedly that no organization and the members of no profession have ever done a finer, more efficient, more patriotic piece of work, than have the Indiana Medical Society and the individual physicians of Indiana in coordinating and mobilizing their forces to meet the war-time needs of their country. They are, moreover, doing everything possible to mitigate the hardships which must inevitably fall upon many communities because of a dearth of qualified physicians due to the demands for doctors in the armed forces. I pay this tribute to the Indiana Medical Society and to the doctors of Indiana in sheer admiration of the manner in which they have performed the gigantic task they were called upon to do."

Group Hospitalization and Medical Service Plans

(1) Report made upon the meeting with the representatives of the Committee on Hospitalization Plan of the C.I.O.

(2) Report made by Albert Stump upon progress of the Indiana State Hospital Association in its plan to set up a non-profit organization for hospitalization in this state. Mr. Stump reported that the question as to whether or not legislation was needed to do this was before the Attorney General at the present time.

State Board of Medical Registration and Examination and Cult Study Committee

(1) The committee discussed the "Full American Citizenship" amendment to the Medical Practice Act.

(2) Report received which would indicate that C. F. Kaadt is increasing his activities in promoting the Kaadt Diabetic Institute at South Whitley, Indiana. Dr. Kaadt's procedure in the treatment of diabetes is not generally recognized by medical authorities.

(3) Albert Stump is to prepare a statement that may be printed for the use of each physician, containing the following information:

1. What is an osteopath?
2. What is a chiropractor?
3. What is a physician?

This is to be written in non-legal and non-technical form, and is to be as simply drawn as possible.

The Journal

Upon the motion of Dr. McCaskey, seconded by Dr. Austin, the committee approved carrying gratis a full-page advertisement concerning the Christmas seal campaign conducted by the National Tuberculosis Association.

Insurance survey. The committee instructed the secretary to have twenty-five copies of this survey printed.

Medical Defense

Can a physician in military service be sued for malpractice? This question is answered by the following statement made by Albert Stump:

"There are no cases that I have been able to find where a physician in military service has been held liable for malpractice for services rendered in the discharge of his duties as a soldier. In fact no cases upon that question apparently have ever been decided by courts whose opinions are published. But even in the absence of such cases affecting doctors there are some cases establishing the liability generally of officers in the Army. Those cases hold an army officer to be answerable in damages for negligence or even for carrying out a wrongful order of a superior officer where the officer might be subject to court-martial if he did not obey the superior officer. Since there have been cases to that effect, I believe they are sufficient to establish a general liability of army officers, including physicians, for negligence in the performance of their duties in the Army. For that reason I would say that it is not entirely safe to discontinue malpractice insurance.

"I say 'not entirely safe' because I believe it would be difficult to find a jury that would find a doctor in military service guilty of negligence unless the doctor was guilty of some really shocking and gross negligence."

There being no further business, the meeting was adjourned.

LOCAL SOCIETY REPORTS

Clay County Medical Society members met at Glenns Home, at Brazil, on August fourth. Eleven members attended the meeting.

* * *

Howard County Medical Society members held a meeting at the St. Joseph Hospital, Kokomo, on September fourth. Doctor Frank Clifford presented a paper entitled "Research in Causes of Dental Decay." Nine members were present.

* * *

Warrick County Medical Society members met at Boonville, on August twenty-fifth. A business session was held, and an election of officers took place.

WOMAN'S AUXILIARY

President—Mrs. Ernest O. Nay, Terre Haute.
President-Elect—Mrs. Arnold Duemling, Fort Wayne.
Corresponding Secretary—Mrs. Don M. Mattox, Terre Haute.
Treasurer—Mrs. T. R. Hayes, Muncie.

ANNUAL REPORTS FROM COUNTY AUXILIARIES

ALLEN COUNTY

The membership of the Woman's Auxiliary to the Allen County Medical Society numbered 118 for 1941-1942. Sixteen new subscriptions to *Hygeia* were secured this year. The year was started with a membership tea in June, with two state officers as special guests, followed in September by a gala Fun-Soirée at which husbands and other members of the Fort Wayne Medical Society were entertained. The evening included dinner, a floor show, dancing, bridge and bingo.

A guest speaker was engaged for each of the five regular meetings, two of which were dinner meetings. Among the guest speakers were Dr. W. W. Bauer, director of Bureau of Health Education of the American Medical Association; Dr. M. A. Austin, president of the Indiana State Medical Association; Mrs. E. O. Nay, president of the Woman's Auxiliary to the Indiana State Medical Association; and county and city welfare agency heads.

By way of public relations and health education, 450 representatives of civic, educational, rural, welfare, and other lay organizations were entertained at a tea. Dr. C. J. Barborka, of Northwestern University faculty, gave an illustrated lecture on "Diet and Physical Fitness." This event was the first Nutrition-for-Defense meeting in the state of Indiana. The auxiliary is proud of the fact that the Allen County Civilian Defense Nutrition Committee is headed by one of its members, Dr. Jessie C. Calvin, with a second auxiliary member, Mrs. Edgar N. Mendenhall, serving on this important county committee of three. Mrs. E. A. King, past president, originally was co-chairman of this committee until her change of residence to Kentucky. Assembly programs with a lecture by Dr. W. W. Bauer, of the American Medical Association, on "Popular Beliefs That Are Not So," were sponsored at three of the local high schools. Dr. Bauer's message reached more than 4,600 Fort Wayne people.

The names of thirty-five pioneer doctors who practiced in Allen County from 1804 to 1870, and their biographies, will be filed with the state historian as part of the state project. Pediatric projects were carried on in all three of the main hospitals in Fort Wayne.

Fifty auxiliary members served as directors on various boards of other organizations. Among important offices held by members, Mrs. Herbert A. Ray is serving her second year as president of the Fort Wayne Woman's Club. Those serving the American Red Cross are: Mrs. W. O. McBride, head of Volunteer Service — Production Center; Mrs. L. P. Harshman, head of Home Service Department; Mrs. H. O. Bruggeman, head of Motor Corps — Production Center; Mrs. Charles Rothschild, head of Braille; and Mrs. D. D. Johnston, head of First Aid Classes.

The auxiliary donated ten dollars to the American Red Cross. Members served as instructors in Nurses' Aid, Home Nursing, and First Aid. The Red Cross classes for First Aid, Staff Assistants, Canteen, and Motor Corps included many members in their enrollment. Ten thousand first-aiders were classified for the American Red Cross, and a complete new alphabetical file was made for these, according to addresses. In doing so, it was necessary to typewrite and address 700 double government postcards in order to check and to correct addresses. First-aiders of Allen County will then be organized into squads and assigned to First Aid Stations as a part of the medical defense program of this county. A spot map is being made to show location of stations and first-aiders in the entire county. The services rendered by members of the auxiliary in Red Cross volunteer work included: 850 hrs. surgical dressings; 520 hrs. sewing; knitting 79 sweaters, 2 helmets, 26 prs. socks, and 5 baby layettes; 125 sweaters pressed; and 450 hrs. devoted as staff assistants.

The officers who guided the work and affairs of our auxiliary unit for the year 1941-1942 were: President, Mrs. Arnold H. Duemling; President-elect, Mrs. Edgar N. Mendenhall; First Vice-president, Mrs. Noah Zehr; Second Vice-president, Mrs. George E. Moats; Third Vice-president, Mrs. Harvey L. Murdock; Fourth Vice-president, Mrs. Mahlon F. Miller; Treasurer, Mrs. E. L. Cartwright; Recording Secretary, Mrs. William C. Wright; Corresponding Secretary, Mrs. G. A. Smith; Councilor, Mrs. E. A. King; Historian, Mrs. E. M. VanBuskirk; and Parliamentarian, Dr. Jessie C. Calvin.

DELAWARE-BLACKFORD

Sept. 9, 1941—Dinner-bridge, Hotel Roberts.

Oct. 14, 1941—Luncheon at Ball Memorial Hospital — sewing and bandage folding for hospital.

Nov. 11, 1941—Dinner at Y.W.C.A. Speaker: Mrs. Lester Smith, League of Women Voters.

Dec. 9, 1941—Tea at Ball Memorial Hospital. Guest, Mrs. E. O. Nay. Mrs. Nay and Mrs. U. G. Poland spoke on "Pioneer Doctors."

Jan. 13, 1942—Dinner-bridge, Hotel Roberts.

Feb. 10, 1942—Luncheon at Ball Memorial Hospital — sewing and bandage folding for hospital.

March 10, 1942—Dinner at Hotel Roberts, after which the group heard Carol D. Alcott at the Masonic Temple.

April 14, 1942—All-day sewing at hospital.

May 5, 1942—Tea at home of Mrs. Robert McMichael. Election of officers. Packed four boxes for sons of members who are in the armed forces.

LAKE COUNTY

The Lake County Auxiliary has held the following county meetings during the past year:

Feb. 12, 1942—The meeting was held at the Gary Methodist Hospital. Election of officers. Mrs. Wilbur Frigley, the president of the Chicago Housewives' League, gave a very interesting talk on "Consumer Education."

April 9, 1942—The meeting was held at St. Catherine's Hospital at East Chicago. Mr. C. L. Schuler talked on the subject of "Lyovac Normal Human Plasma," and Mrs. A. L. Spohn, a member of the County Board on Civilian Defense, told about her work.

June 2, 1942—A luncheon was given at Lake Hills Country Club. Mrs. George Schnake gave a book review of "Two Ends to Our Shoestring."

The Lake County Auxiliary is divided into three units; the work of the units for the past year has been as follows:

Gary Unit—The women in Gary have taken care of the Blood Bank at Mercy Hospital. They have acted as receptionists to the donors, serving coffee and doughnuts. It has been necessary for them to be there each day.

East Chicago Unit—They have made surgical dressings and bandages for St. Catherine's Hospital during the past year.

Hammond Unit—The members in Hammond have sewed for the Red Cross twice a month during the year. They have received some five hundred hours of credit for their work.

MARION COUNTY

The Woman's Auxiliary to the Indianapolis Medical Society was fortunate in beginning the year as hostess for the state convention. They were honored by having Mrs. Mosely, their national president, bring them an inspirational message at this meeting.

A tea for new members was given by the membership committee in October. The wives of doctors stationed at Fort Benjamin Harrison and at Billings Hospital were also invited. The other social event of the year was a dinner-bridge party for the doctors in February.

In November and January regular business meetings were held, followed by tea, with speakers on "Public Health Nursing in Indianapolis" and "Women in Defense."

The Public Relations meeting held in March was well attended by representatives from other organizations. The program on "Emergency Medical Services," given by three Indianapolis doctors, had a wide appeal, personal notes of invitation having been written to presidents of many organizations and were followed by telephone calls from individual members of the auxiliary.

Work was done in obtaining *Hygeia* subscriptions, and a fascinating study was made of the pioneer doctor of Marion County. The constitution was revised and brought up to date.

A study group on Medical Economics was started in February and met twice each month through April. Much reading and study was done by those taking part in the discussion and much benefit derived therefrom. The study was incomplete because pressure of other demands made it imperative to discontinue the meetings until after the present emergency.

During the year donations were sent to the Red Cross and to the American Society for the Control of Cancer.

A May-Day breakfast and business meeting closed the year. Annual reports were given and new officers were introduced.

PORTER COUNTY

The Woman's Auxiliary to the Porter County Medical Society held seven meetings during the past year. One meeting was held in conjunction with the Hospital Guild, at which time the members assisted in making bandages and dressings, and sewing for the County Hospital. The other meetings were held in the various homes, with a dinner preceding the program. The following subjects were discussed at the meetings:

County Welfare Work, by Mrs. A. J. VanWinkle.

Indiana State Auxiliary Convention, by Mrs. E. H. Miller and Mrs. C. M. Davis.

Public Health Nurse, by Miss Eiting.

Philippines, by Mrs. G. R. Douglas.

Early History of Medicine, by Mrs. Ernest O. Nay.

Pioneer Doctors of Porter County, by Mrs. G. H. Stoner.

Review of Auxiliary Bulletins, by Mrs. Paul Vietzke, Mrs. J. R. Frank, and Mrs. E. H. Powell.

The following were elected to serve for the ensuing year:

President	Mrs. Carl Davis
Vice-President	Mrs. E. H. Powell
Secretary	Mrs. E. H. Miller
Treasurer	Mrs. A. J. VanWinkle

SULLIVAN COUNTY

The Woman's Auxiliary to the Sullivan County Medical Society was organized in February, 1942, with Mrs. Irvin H. Scott of Sullivan as president. Mrs. E. O. Nay, state president, was a guest at this meeting. There are nineteen charter members. They have evening meetings at the same time the county medical society meets.

At the March meeting the Constitution and By-Laws were adopted. At the third meeting a study was made of Dr. J. B. Maple's history of medicine in Sullivan County. The dinner meeting held in May climaxed the season.

TIPPECANOE COUNTY

The year of the Auxiliary to the Tippecanoe County Medical Society began with the February meeting, 1942. At this time the following officers were installed:

Mrs. A. C. Clauser ..... President
Mrs. G. R. Donahue ..... First Vice-president
Mrs. E. L. VanBuskirk ..... Second Vice-president
Mrs. R. D. Bayley ..... Recording Secretary
Miss Cecelia Schuck ..... Corresponding Secretary
Mrs. Frank Ratcliff ..... Treasurer

At the February meeting, Mrs. John S. Morrison discussed briefly the new diseases that may be expected as the war progresses, and Dr. Cecelia Schuck of the Department of Nutrition, Purdue University, told in detail of the plans for the mobilization of nutrition.

At the March meeting, Mrs. John C. Burkle gave the history of the auxiliary, after which Dr. and Mrs. E. T. Stahl took the members of the Tippecanoe County Auxiliary with them on a most delightful trip to old Mexico by means of colored moving pictures which they had taken the previous summer.

In April, Mrs. John C. Burkle again spoke briefly, this time on the necessity of securing a wider circulation of *Hygeia*. As a result a motion was passed to appoint a committee to contact the Parent Teachers' Association concerning this. Mrs. R. B. Stewart also spoke briefly on "Cancer Control," after which Dr. Mary Ade, a young Lafayette physician, gave a brilliant and comprehensive paper on "Women in Research."

At the meeting in May, Dr. Louise Meikle spoke on "The Life and Work of Dr. John Hunter," famed British surgeon and physiologist.

The auxiliary has thirty paid members. The dinner meetings were held at the Purdue Union Building the evening of the second Tuesday of each month.

VIGO COUNTY

The Woman's Auxiliary to the Vigo County Medical Society completed its twelfth year, with continued interest and accomplishments.

For the fifth year they have sponsored the occupational therapy work in the two hospitals, Union and St. Anthony, under the direction of Miss Ruth Watts. The value and scope of this work is steadily increasing.

The highlights of the year's program were as follows:

1. A public bridge to raise money for their occupational therapy project.
2. A talk on socialized medicine by Dr. J. H. Weinstein.
3. A guest dinner with a talk by Dr. Hazel Tesh Pfennig on her recent trip to South America.
4. An educational day with Dr. W. W. Bauer, director of Bureau of Health Education, American Medical Association, addressing high school assemblies, a luncheon club, the auxiliary meeting, which was attended by more than 400 guests, and making a radio speech.

At the regular business meetings Red Cross sewing was done.

Members sold forty-seven *Hygeia* subscriptions and cooperated with the state auxiliary in compiling the histories of pioneer doctors.

As individuals, members are working in every type of worth-while enterprise.

Membership consists of sixty-nine paid members, four on leave of absence, and four whose husbands were in the service at the beginning of the year.

WOMAN'S AUXILIARY TO THE NORTHEASTERN INDIANA ACADEMY OF MEDICINE

(Noble, Steuben, DeKalb and LaGrange Counties.)

First meeting, held in November, was a social meeting.

Second meeting was held in January. Talk and demonstration of the audiometer by Miss Brittie Baker, Noble County nurse.

Third meeting was held in February. Mrs. King Chapman gave a talk on "My Experiences During the Bombing of Pearl Harbor." Mrs. Ernest O. Nay attended this meeting and gave a brief talk on the work of the auxiliary.

Our fourth and last meeting of the year was held in March. Mrs. Robert Streeper gave a talk on "My Experiences During the Bombing and Evacuation of Penang."

Five dollars were donated to the Red Cross.

(Additional reports will be published in the next issue.)

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, July, 1942

Diseases	*July 1942*	*June 1942*	*May 1942*	*July 1941*	*July 1940*
Tuberculosis, Primary	2	2	3	27	0
Tuberculosis, Active	134	111	170	161	147
Tuberculosis, Arrested	8	9	25	7	0
Chickenpox	29	132	363	12	26
Measles	89	305	875	180	29
Scarlet Fever	39	96	299	59	61
Smallpox	2	6	3	0	4
Typhoid Fever	5	7	7	13	14
Whooping Cough	200	168	281	80	75
Diphtheria	13	9	11	9	19
Influenza	15	14	20	28	8
Pneumonia	15	25	47	16	29
Mumps	14	59	195	9	33
Poliomyelitis	11	0	0	11	19
Meningitis (Cerebro-Spinal)	1	1	3	2	4
Meningitis (Influenzal)	1	0	0	0	0
Undulant Fever	2	2	1	0	7
Malaria	1	2	0	3	0
Rocky Mt. Spotted Fever	2	0	1	0	3
Vincent's Angina	4	6	2	0	0
Rubella	4	19	156	4	0
Septic Sore Throat	2	0	1	0	0

ABSTRACT

STATUS OF PROVISION AND SUPPLY OF PHYSICIANS IN ARMY AND NAVY

Many thousands of physicians either have been or are in the process of being commissioned in the Army and Navy, Frank H. Lahey, M.D., Boston, chairman of the directing board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, reports in the August 22 issue of *The Journal of the American Medical Association*. Dr. Lahey's report on the "Present Status of Provision and Supply of Physicians" is as follows:

Many thousands of medical officers have taken their oaths of office or are now in the process of being commissioned in the Army and Navy. Additional thousands of physicians under 37 years of age have been cleared by the professional and state committees for service in the Army and Navy. In some states, quotas developed by the Procurement and Assignment Service have been filled. However, with the rapid expansion of the armed forces planned during the next six months and with the growth of the military medical services, many additional thousands of medical officers will be required.

Some reduction in the number of medical officers per thousand troops is anticipated because the Army has changed its tables of organization, so that officers in the Medical Administrative Corps will be assigned to administrative positions formerly held by medically trained men.

ENROLMENT

By June 1 a hundred and thirty thousand enrolment forms and questionnaires had been returned by physicians. Although many thousands indicated that a commission in the armed forces was their first choice, relatively few applications for commissions in the medical corps of the several services had been received. This seems to have been due to a misunderstanding; namely, that enrolment with the Procurement and Assignment Serice was equivalent to applying for a commission. Furthermore, lack of personnel and equipment delayed entering the data of the questionnaires on punch cards. All the information has now been coded on the punch cards. Obviously, every physician should enroll with the Procurement and Assignment Service. If the physician is enrolled, he will be benefited by receiving proper consideration from his Selective Service board, and the state chairman of the Procurement and Assignment Service will be aided in arriving at a decision as to occupational deferment and in rating a physician or dentist as available or essential.

All physicians who failed to enroll and file questionnaires are now being listed. This will be done with the aid of the National Roster and of the American Medical Association. If you have not yet filled out an enrolment form and questionnaire, you should, for your own benefit if not for proper service to your nation, *fill out the enrolment form and questionnaire at once.* If you do not have a blank form, request one immediately from the National Roster of Scientific and Specialized Personnel, 1006 U Street N.W., Washington, D.C.

THE RECRUITMENT OF PHYSICIANS

On April 18 the President issued an executive order transferring the functions of the Procurement and Assignment Service to the War Manpower Commission in the Office for Emergency Management. Previous to this the Navy established offices of Naval Officer Procurement in all naval districts throughout the United States for the most rapid processing of applications and the procurement of officers.

During the latter half of May, terms of army officers constituting medical officer reeruiting boards were sent by the War Department to various states to stimulate and facilitate the recruiting of medical and dental officers for the Army. These boards are authorized to issue commissions to qualified applicants immediately. The weekly number of appointments rose sharply. Since the members of the recruiting boards are getting in contact only with those physicians and dentists who have been "cleared" by the Procurement and Assignment Service, there has been a greatly increased volume of work in this agency. To handle this additional work, the office personnel of the Procurement and Assignment Service was increased, and on July 2 its offices were moved to 1006 U Street N.W., along with those of other divisions of the War Manpower Commission, including the National Roster of Scientific and Specialized Personnel.

With these increased facilities, proper functioning became possible. By the middle of July letters had been forwarded to fifteen hundred physicians under 37 years of age who had signified their preference to serve with the Army. Each letter contained a postcard addressed to the Surgeon General of the Army and one addressed to the War Manpower Commission, and the physician was asked to sign and forward them, thus indicating his desire to be commissioned. The sending of these letters will be continued. To expedite matters, the recruiting unit in each state is informed by the Office of the Surgeon General of the applicant's willingness to apply for a commission.

The Navy Department is furnished names by the Procurement and Assignment Service of those physicians who signify a preference for the Navy. The Bureau of Medicine and Surgery sends such physicians invitations to enroll in the Medical Corps of the United States Naval Reserve and indicates to them how they may apply according to Navy regulations. Physicians should realize that they still have freedom of choice as to the armed service to which they prefer to apply for commission. It is to be borne in mind that the Selective Service boards alone have the legal authority to draft physicians. These boards have been instructed to give every consideration to the physicians whose numbers have been called.

Thus the Procurement and Assignment Service is now functioning according to the plans originally established by the directing board and by the various committees. Its purpose, however, includes not only the listing and procurement of medical, dental and veterinary personnel for the armed forecs but also the procurement and equitable allocation of medical and allied personnel for civilian service in medical schools, hospitals, industry, nonmilitary governmental agencies and civilian communities.

NEEDS OF THE CIVILIAN POPULATION

One of the first steps taken by the directing board of the Procurement and Assignment Service was the establishment of a study of the distribution of physicians in each of the states according to age, sex and type of practice, in relation to population. These data were utilized in meeting the needs of the armed forces, due allowance being made for the differences between states. Furthermore, the medical needs of districts in each state were roughly estimated, on the basis of one physician for each 1,500 of population. These figures are employed in determining the number of physicians to

be judged "essential" in any given area. The status of individual physicians, not only in private practice, but also in hospitals, medical schools, industry and various governmental institutions, was determined only after the local authorities had been consulted, and the final decision was always left to the state committees or, in the case of dispute, to the corps area committees.

Unfortunate incidents have arisen through the commissioning of men previously declared "available" who have suddenly become "essential" because of the death, disability or enlistment of some other physician. In such cases nothing can be done by the Procurement and Assignment Service if the oath of office has been administered. However, the Navy has revoked the commissions in instances in which the withdrawal of a physician from his community was not obviously to the best interests of the general defense program. Many difficult situations have been created by the volunteering of men listed as "essential." Such a physician is just as important to the war effort as a medical officer; he should not apply for a commission unless he is certain that some one is available to take his place. In fact, in this country, as in England, the armed forces have agreed to refuse a commission to a physician or dentist so designated. The Navy likewise is doing this.

RESERVE OFFICERS

All reserve officers of the Army are now subject to call to active duty, even though they have been declared "essential"; such men were granted permission to resign prior to July 1, 1942. All reserve officers of the Navy, except interns, are placed on active duty within a month after obtaining their commissions.

MEDICAL SERVICES FOR INDUSTRIAL COMMUNITIES

Medical services must be provided for new or rapidly expanding industrial communities. This is essentially a local problem, but, if physicians are not available, men who are physically unfit or too old for military service, and who are willing to be dislocated, must be assigned to such positions. This is a problem to which the directing board of the Procurement and Assignment Service is now giving special consideration so that suitable recommendations may be sent to the War Manpower Commission.

ADDITIONAL PROBLEMS

1. A suitable pool of physicians, including specialists, must be established from which the armed forces can draw for men with general and special training and for future needs.

2. The headquarters of Procurement and Assignment Service, now well organized and located with the National Roster of Scientific and Specialized Personnel at 1006 U Street N.W., Washington, D.C., proposes to maintain up to date information concerning each physician, dentist and veterinarian in the United States, his assignment and his availability.

3. Consideration is being given to the utilization of the physicians who have graduated from unapproved medical schools and of citizens of co-belligerent countries, of enemy countries and of enemy occupied countries.

Books

RECEIVED

SYNOPSIS OF PATHOLOGY. By W. A. D. Anderson, M.D., Assistant Professor of Pathology, St. Louis University School of Medicine; Pathologist, St. Mary's Group of Hospitals. 661 pages. 294 illustrations and 17 color plates. Fabrikoid. Price $6.00. C. V. Mosby Company, St. Louis, 1942.

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

In addition to our Professional Liability Policy for private practice we issue a special

MILITARY POLICY

to the profession in the Armed Forces at a

REDUCED PREMIUM

THE MEDICAL PROTECTIVE COMPANY

OF

FORT WAYNE, INDIANA

COOK COUNTY GRADUATE SCHOOL OF MEDICINE

(In Affiliation with COOK COUNTY HOSPITAL)

Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two weeks intensive course in surgical technique with practice on living tissue, every two weeks throughout the year. General courses of one, two, three and six months. Clinical Courses; Special Courses.

MEDICINE—One month course in Electrocardiography and Heart Disease starting the first of every month, except December.

FRACTURES & TRAUMATIC SURGERY—Informal Course available every week.

GYNECOLOGY — Informal Clinical and Diagnostic Courses every week.

OBSTETRICS—Informal Clinical Courses every week.

OTOLARYNGOLOGY — Clinical and Special Courses every week.

OPHTHALMOLOGY—Informal Clinical Course every week.

ROENTGENOLOGY—Courses in X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy every week.

UROLOGY—Two Weeks Course and One Month Course available every two weeks.

CYSTOSCOPY—Ten Day Practical Course every two weeks.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES.

TEACHING FACULTY * ATTENDING STAFF OF COOK COUNTY HOSPITAL.

Address: Registrar, 427 South Honore Street, Chicago, Illinois

EMERGENCY CARE. By Marie A. Wooders, B.S., R.N., Principal, School of Nursing, Hackensack Hospital, Hackensack, New Jersey; and Donald A. Curtis, M.D., Lieutenant-Colonel, Medical Reserve, United States Army, and Instructor in Military Nursing, Hackensack Hospital, Hackensack, New Jersey. 560 pages. 201 illustrations. Cloth. Price $3.50. F. A. Davis Company, Philadelphia, 1942.

BOOK REVIEW

MANUAL OF CLINICAL CHEMISTRY. By Miriam Reiner, M.Sc. (Assistant Chemist to The Mount Sinai Hospital, New York). With an Introduction by Harry Sobotka, Ph.D. (Chemist to The Mount Sinai Hospital, New York). 296 pp. with 18 illustrations. Cloth. $3.00. Interscience Publishers, Inc., New York, 1941.

This little volume is a veritable "Readers Digest" of analytical methods for estimating various compounds and elements in blood, urine and spinal fluid. More than one hundred such procedures are described in less than three hundred pages. For good measure there are also included brief remarks on normal and pathological figures and short sections on the preparation of standard solutions and determination of pH.

The style is laconic, but clear. For each test the reagents are numbered, and each step of the method is given on a separate line, which makes it easy for the beginner to follow the procedure. Citations to the place of original publication of the methods are also included. The choice of methods is generally good, and there is evidence that the author has herself tested out most of them, which is a detail sometimes overlooked by authors of such manuals.

Without detracting from the merits of this book, the reviewer would like to emphasize certain precautions in its use. Some of the procedures require much more training and analytical skill than is possessed by the average laboratory technician. Thus, the estimation of blood lactic acid, serum potassium, vitamins and hormones are tasks for an expert analytical chemist. Here the author should perhaps have issued a word of warning lest the alumnus of a school for technicians be led astray by the brevity of presentation. Inaccurate laboratory work is worse than none, and its occurrence in the past has sometimes shaken the confidence of a physician in all clinical laboratory work.

The inclusion of qualitative tests for lead, arsenic and mercury would also seem to be of questionable value. Since traces of these elements are usually present in the normal body, qualitative results mean nothing. The quantitative method proposed for arsenic is antiquated and much more complicated than more recently published procedures.

On the whole, this book should prove very useful to clinical laboratory workers.

R. N. Harger,
Professor of Biochemistry and Toxicology,
Indiana University School of Medicine,
Indianapolis, Indiana.

STANDARD NOMENCLATURE OF DISEASE and STANDARD NOMENCLATURE OF OPERATIONS. Edited by Edwin P. Jordan, M.D., Chicago. 1,022 pages with some illustrations. Fabrikoid. Price $4.00. American Medical Association, Chicago, 1942.

The third edition of "Standard Nomenclature of Disease," just issued by the American Medical Association, which includes also the first edition of Standard Nomenclature of Operations, is interesting and valuable to the medical profession as a whole, but is designed primarily for clinicians. It aims to include every disease which is clinically recognizable and to avoid repetition and overlapping. Its exhaustive topographic and etiologic classifications, with accompanying indices, are a boon to those who wrestle with the classification of disease and the classification of operative procedures. The Nomenclature of Operations was prepared by The Committee on Operative Nomenclature of the National Conference on Medical Nomenclature. Through the use of this nomenclature clinicians will be able to conform with the system universally employed in classifying disease, and it should serve as an invaluable reference book.

ABSTRACT

HONOLULU'S OBSTETRIC PROGRAM FUNCTIONED DURING JAP BOMBING

The courage of pregnant women during the bombing of Pearl Harbor on December 7 shows that the quality of American womanhood of today is such as to be able to face a real crisis with remarkable fortitude, the same as the pioneer women of this country, O. Lee Schattenburg, M.D., Honolulu, declares in *The Journal of the American Medical Association* for April 4. His article describes the experiences of managing a community-wide obstetric program in Hawaii before, during and after a sudden major disaster "in the hope that these facts may be of some value to other communities in their efforts to make similar plans."

Referring to the Japanese attack on Honolulu on Sunday morning, Dec. 7, 1941, Dr. Schattenburg says that "Much will be written and much will be said regarding the care of casualties, emergency aid stations, police and fire protection and a number of other phases of community activity under similar circumstances; the specific problem of this paper is to consider obstetric management under crisis conditions. It is probable that this problem is just as real as the aforementioned problems; it is also probable that this problem as it existed in Honolulu would be paralleled in any other community. . . .

"While a sudden disaster instinctively turns one's mind to the importance of first aid, of immediate care of casualties, of ambulances and trained personnel to care for the wounded, it is also well to keep in mind that, war or no war, women will keep right on having babies and they must also receive adequate care. What is more, the experiences in London showed that, under the acute stress of a bombing, women are apt to go

ZEMMER
PRESCRIBE OR DISPENSE ZEMMER
Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled. Write for general price list.
Chemists to the Medical Profession
IN-10-42
THE ZEMMER COMPANY • OAKLAND STATION • PITTSBURGH, PENNSYLVANIA

into premature labor or to abort. Plans for a major disaster must therefore include obstetric provisions. . . ."

The following plans, Dr. Schattenburg says, proved workable: The assignment of obstetricians to maternity hospital posts instead of their use in other hospitals to care for casualties; special teams equipped to care for premature infants born before getting into a hospital; a careful survey of available maternity bed facilities and the advising of patients that in case of a disaster the facilities of delivery rooms would be available but that mothers would be expected to return to their families earlier than under normal conditions; arrangements with hospitals to prevent encroachment on the maternity departments by casualties; refresher courses in practical obstetrics for all public health nurses to improve their efficiency in home deliveries; nursing personnel in obstetric departments kept intact regardless of the extra load the rest of the hospital might suddenly be compelled to carry, and arrangements for keeping available competent pediatricians and obstetricians for consultation purposes as an aid to the general practitioner or to cover for him in case he was suddenly pressed into other disaster activities.

Discussing how the plan worked, the author says that "With surprising ease, the obstetric load was carried with the minimum of friction. Postpartum patients were evacuated to their families without any protests. The delivery services and nursing facilities were adequate. The surprising fact, however, was that we did not get the flood of premature labors or abortions which were expected; there was a slight flurry the first day or two, but the incidence was hardly above normal. This can possibly be explained by two underlying factors: (1) The bombing came as a sudden surprise, giving us no time to develop the state of alarm that would accompany anticipation of such an event, and (2) the quality of American womanhood of today is such as to be able to face a real crisis with remarkable fortitude. The latter is an observation we have been able to make repeatedly in private and clinic cases and seems convincing that the mother of today instinctively retains some of the courage which allowed pioneer women to continue to rear their families in the face of hardship, privation and danger. However, it is fully appreciated that a second bombing here would be a much more severe test of fortitude than was the first and we are continuing to expect an increased load of abortions and premature labors in the event of another sudden bombing; the plans outlined are still being kept as a practical working basis."

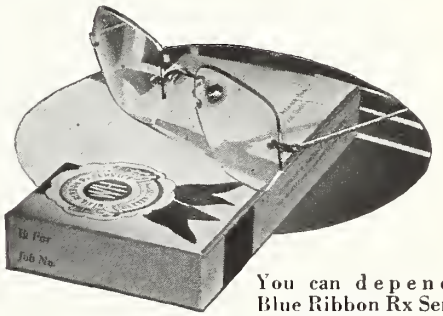
It is pointed out, however, that it is hard to anticipate every eventuality ahead of time and that in Honolulu unexpected circumstances presented themselves, demanding solution. Among these were the continued blackouts which made night traveling difficult, slow and hazardous. Pregnant women who were developing symptoms of beginning labor were advised to get in touch with their physicians before nightfall and to enter the hospital during daylight hours as often as circumstances warranted. The radio and the press were used to disseminate such information.

Of particular significance is the following statement by Dr. Schattenburg: "The question arose what to do with the early pregnant woman whose husband had suddenly been killed. There were numerous instances of women who had been severely shocked by the sudden loss of the husband in the unexpected catostrophe, added to which was the discovery of an early pregnancy. It was gratifying to note the renewed courage of each of these women when she was advised to carry through with her pregnancy for two logical reasons: (1) she would be able to have a living memory of her husband who had died so gallantly and (2) she would be able to make a real contribution to the national program by bearing a child. I saw no hint of refusal to carry through after these facts had been carefully explained."

In a footnote the author says that Honolulu has had two air raid alarms and one bombing since his paper was prepared and that the program outlined is still proving itself useful.

THERE IS A DIFFERENCE

IN Rx SERVICE



You can depend on Blue Ribbon Rx Service

THE WHITE-HAINES OPTICAL CO.

INDIANAPOLIS and SOUTH BEND

When Diagnosing

Consider Our Shoes for Posture, Balance, Support or Correction

Heid assures a most careful shoe fitting as to doctors' prescriptions for type of shoe, last and correction to be attached for problem feet—those beyond the regular shoe store service.



Stock and Made-to-Measure Shoes

Orthopedic and standard shoes built flexible, resilient or rigid (not the same type for everybody) are featured and fitted by Irvin Heidenreich. Also persons sent in for good, comfortable shoes in regular or odd sizes are fitted at reasonable prices.

HEID'S HEALTH SHOE

1546 N. ILLINOIS ST. (Sq. East of Meth. Hosp.)

PHYSICIANS' DIRECTORY

SURGERY AND GYNECOLOGY

Hours: 12 to 2, and by Appointment

P. E. McCOWN, M.D.

DISEASES AND SURGERY OF THE GENITO-URINARY ORGANS

521 Hume Mansur Bldg. Indianapolis

JOHN H. EBERWEIN, M.D.

Practice Limited to
ABDOMINAL AND GENERAL SURGERY

720 Hume Mansur Bldg. Indianapolis

HOURS: 12 to 4 and by Appointment
PHONE: Office, Lincoln 3125

FRANK C. WALKER, M.D.

GYNECOLOGY AND ABDOMINAL SURGERY

Hume Mansur Bldg. Indianapolis

PHONES: Office, Riley 1714; Drs. Exch., Cherry 2031; Res., Hu. 2720

C. O. McCORMICK, M.D.

Practice Limited to
OBSTETRICS AND GYNECOLOGY

445 N. Pennsylvania St., No. 902 Indianapolis

Hours by Appointment Telephone: Riley 6133

E. VERNON HAHN, M.D.
NEUROLOGICAL SURGERY

PAUL MERRELL, M.D.
SURGERY

914 Hume Mansur Bldg. Indianapolis

Hours: 2 to 3 Daily Except Wednesday and Sunday

GOETHE LINK, M.D.

PRACTICE LIMITED TO SURGERY

608 Indiana Pythian Bldg. Indianapolis

Hours: 11 to 1, or by Appointment; Phone Ta. 4564

Homer G. Hamer, M.D.
Henry O. Mertz, M.D.
William N. Wishard, Jr., M.D.
GENITO-URINARY DISEASES

1711 N. Capitol Ave. Indianapolis

Phones: Office, Li. 8262 Hours 12 to 3
Residence, Hu. 1177

WILLIAM E. GABE, M.D.

Practice Limited to
ABDOMINAL AND GENERAL SURGERY

612 Hume Mansur Bldg. Indianapolis

Hours: 2-4 and by Appointment Phone 2866

F. S. CROCKETT, M.D.

GENITO-URINARY DISEASES

208-209 Schultz Bldg. Lafayette

ROY LEE SMITH, M.D.
JOHN W. HENDRICKS, M.D.

UROLOGY

445 N. Pennsylvania St., No. 708 Indianapolis

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 NOVEMBER, 1942 NUMBER 11

THE ROLE OF THE GENERAL PRACTITIONER IN THE PRESENT INDUSTRIAL HYGIENE PROGRAM *

COLONEL JAMES G. TOWNSEND, M.D.**

BETHESDA, MARYLAND

Celebrating the ninety-third anniversary of any organization is usually a memorable occasion, if only because ninety-three years of existence prove a certain soundness of wind and limb! But let me hasten to add that the ninety-third anniversary of your State Medical Association is a particularly auspicious occasion for two reasons: first, because you meet as men of healing in a time of world-wide destruction; and second, because today the physician on the battle-front and the physician on the home-front are both faced with a critical urgency of effort which differs only in degree.

A soldier put out of action on the battle-line because of a wounded hand, for example, is, in a military term, a "noneffective." A worker put out of action on the production line because of an injured hand is also a "noneffective." It is a military necessity in both cases to return these men to effective action as soon as possible.

Civilian health has become military health. Every one of you can tell, from personal experience, that the speed-up of our nation's war production drive has been accompanied by a parallel speed-up in the calls for medical services. The ancient phrase, "Physician, heal thyself," has taken on particular aptness today because every doctor must have the strength of Atlas, the endurance of Hercules, and must be at as many places as if he were twins! But we cannot fall back with the complaint that the times are out of joint. If Americans shrank from facing and overcoming obstacles, the state of Indiana would never have been settled. In his day-to-day practice the private physician has little opportunity and less time to see the total picture of the health needs of a nation at war. It is that total picture which I would like to present briefly for your consideration and action.

In my office back in Washington I have hanging on the walls several maps of the United States. Each map is marked off in zones; in a certain sense, these are military zones of attack. The enemy which the Division of Industrial Hygiene of the National Institute of Health, United States Public Health Service, is pledged to meet in mortal combat is the staggering amount of time lost from work because of accidents and illness in a country which needs every minute and every hour of war production. In 1940 we lost about 400,000,000 working days—an astronomical figure which means 150,000 blueprints will never fly off the drawing board to bomb Berlin and Tokyo; enough time to build 35,000 tanks, to throw the enemy out of North Africa; or enough time to build 50 huge aircraft carriers, to keep the sea lanes of the world open for the endless traffic of the United Nations.

Because of the hair-line accuracy with which our machines are built, it has been said that this is a war of decimal points. I submit that in the same sense we face a war between the production capacity of this arsenal of democracy versus the production capacity of an enslaved and driven Europe. We are now engaged in a titanic struggle to change "too little, too late" into "plenty, on time"!

"Production capacity," insofar as our profession is concerned, means men not on their backs sick in bed, but rather men who are healthy, on their feet, and on the job. I have said that in 1940 we lost 400,000,000 working days. In 1941, as our tooling-up accelerated, that figure began to rise. Not 18,000, but 19,000 lives were lost among our working population; the million and three-quarter temporarily disabling accidents in 1940 sky-rocketed past the two million mark in 1941.

* Presented before the General Meeting of the Indiana State Medical Association, French Lick Springs, September 30, 1942.

** Medical Director, U. S. Public Health Service.

In this year of 1942 these black figures of illness and accidents will reach a new peak. And we, as physicians, know what the statistical enormity of production-time loss means when it is translated into lost, crippled, or broken lives. We know, too, that time lost from work is a virus in the economic life blood of every community.

America has today upwards of 55 million workers. About 12½ million of these workers are employed in direct war production to supply our constantly growing armed services. As the size of our fighting forces expands past the 5 million mark, and continues to grow even further, we realize that there will have to be an expansion in the number of war workers. Your former governor, the Honorable Paul V. McNutt, now chairman of the War Manpower Commission, recently stated that our country will have about 23 million men and women at work in war industry by the end of next year.

Mr. McNutt mentioned "men and women" advisedly, because more women are going to work every day. Upwards of 13 million women are at work today. The War Production Board has estimated that of this growing number more than 2½ million women will be in direct war work by 1943. The majority of these additional women will come from the younger age-groups. Most of these younger women excel in aptitude and ability for certain types of jobs, but you physicians know that our highest tuberculosis death rates, for example, are found in young women between fifteen and twenty-four years of age. Here is a single, direct example of where the need for extra watchfulness is called for. Another factor which we cannot ignore is that certain types of industrial diseases occur more frequently among women than men.

Not only are more women working, but also more under draft-age youngsters and older men. Many of these three new types of workers do not have the specialized strength and experienced working habits of men called into services. Despite this temporary handicap, they are working harder and longer than many of them have ever worked before, and so our federal, state, and local health conservation forces have had to meet the large-scale question of fatigue. A tired worker is careless about his own safety, as well as the next fellow's. He is equally careless in handing precision jobs.

As war factories hire greater numbers of people without a parallel expansion of floor space, they become crowded to the point of cutting down on the margin of safe elbow-room.

Increased working forces and longer production hours bring problems in ventilation, sanitation, and lighting. The emphasis on certain long-standing chemical and engineering problems has shifted with new conditions—the need for blackout arrangements, for example.

To go a step further in trying to get a clear-sighted, complete picture of the situation we must meet, we cannot ignore the fact that three shifts per day—desirable as they are—may force a relaxation of the vigilance needed to repair and maintain efficient and safe machinery. Because of priorities and shortages, new toxic materials and substitutes are being rushed into use before complete laboratory research can determine safety limits and tolerance thresholds.

We have seen new towns spring up without adequate health facilities. Many an old town has found itself changed into a metropolis overnight. Today's industrial worker who is out to beat the blitzkrieg of 1942 must often depend on health facilities equal to the Spanish American War. Aside from the important viewpoint of morale, we must recognize and meet the difficulties of our country's workers to produce with top-notch efficiency when they are so often crowded where they work, crowded where they live, crowded in their doctor's waiting room, and crowded at their hospitals and clinics. All in all, then, just when his country needs him most, the war worker faces the greatest difficulty in keeping healthy and on the job. Our strategy in meeting this problem has been not to "wait and see," but rather to see first and then wait for a problem to come along to fit our solutions.

During the depression, before 1936 and the Social Security Aet, only six states were carrying on active industrial hygiene programs. Today, after the Social Security Act and after the great forward push caused by this World War, forty-two industrial hygiene units are operating in thirty-six states.

What have we done to supply those forty-five states and local units—the shock troops of industrial hygiene? The Community Facilities Act which has made $300,000,000 available for the critical needs of military and industrial mobilization areas is a step forward. When the whistle blows the worker steps out of the comparatively narrow environment of his plant and becomes a citizen of his town. Every hospital and every sewage or safe water system plant the Community Facilities Act helps to build, helps him.

But how does the Federal Division of Industrial Hygiene help those forty-two state and local units? The central ganglion of a nation-wide network of services is the brickbuilding of our Division in Bethesda, Maryland, just outside of Washington, D. C. With state cooperation we have built up four major lines of eommunication from this point—lines which lead from California in the West to Massachusetts and Georgia in the East and South.

Our first line of communication and supply is research. In our laboratories today dozens of technicians are carrying on a hundred projeets, almost every one of which bears directly on the war. They are developing instruments for the deteetion and measurement of toxie dusts, fumes, and gases. They are examining the relationship of

fatigue to different hours and types of work. Other men are doing confidential work in aviation medicine in collaboration with the Navy.

With the greatly increased use of toxic substances in war production, some of our most immediately applicable work is in the study of the toxicity of explosives and solvents, airplane and armament metals, plastics—and last, but not least, synthetic rubber. These facts and figures are constantly being added to the reservoir of industrial hygiene "knowhow" which we have gathered over the past generation—a reservoir which can be tapped by anyone who asks for aid.

Our second line of supply to the state industrial hygiene bureaus is personnel. Since July, 1941, representatives of our Division have criss-crossed the country; they have visited thirty-eight states in order to get first-hand information on the industrial health problems of important war industries, and on the basis of such information they have appraised the state facilities available to solve these problems, as well as determining to what extent our Division could augment state personnel and equipment.

The activities of the present forty-two state and local industrial hygiene units are budgeted for the current fiscal year at more than $1,250,000. The number of state and local personnel has jumped during the past year from about two hundred to the present figure of about three hundred fifty. In addition, the Division of Industrial Hygiene at the National Institute of Health has recruited and trained nearly one hundred men; forty-six of these men are now on duty with twenty-eight states and the Tennessee Valley Authority on a loan basis.

Recently our Division conducted a two-weeks' course in occupational dermatitis, which was attended by twenty-two leading physicians from every part of the country. The formal lectures were followed by visits to various war plants. We believe that when these doctors return home they will be better equipped—not only to help themselves but also to pass along some of the experience they have gained. Since more time is lost from work because of occupational dermatitis than any other occupational disease, we feel that our course is a big step in the right direction. As a further aid to state and local units, we have supplied them with tens of thousands of dollars worth of field and laboratory equipment.

Our third line of supply goes beyond the loan of personnel and scientific euipment. It includes an all-out continuation of our previous services. These services range all the way from making analyses of specimens submitted by the states to assistance in promoting a workers' health education program.

The state and local units have cooperated with us by going all-out in their services to war industries. During the last fiscal year they investigated about seven thousand plants and made recommendations covering nearly two million workers. As their budgets and professional staffs grow, as the dollars-and-cents and war production value of their services becomes better known to their fellow citizens, as well as Washington, I feel sure that these states will intensify and speed up their investigations this year.

Our national industrial hygiene program includes a fourth and final major line of supply to the states. This is our job of directly assisting the War Department.

The Division of Industrial Hygiene of the National Institute of Health has completed surveying sixty of the one hundred fifty government plants certified to us by the War Department to date. These key war plants include arsenals, and airplane and munitions plants. In addition to military personnel, these plants employ several hundred thousand civilians. Our field and research services to the War Department are being continued and accelerated.

No discussion of industrial health and production-time loss would be complete without pointing out that although sickness, accidents and deaths due to hazards *on* the job may be impressive, these account for less than 10 per cent of the industrial time loss. The remaining 90 per cent, or more of lost time, is due to disabling *non*-occupational diseases. Nine out of ten workers who are off the job and in the hospital or sickroom are there because of some general illness. The respiratory diseases, digestive disorders, and certain chronic diseases take a greater yearly toll of American life and effort than a dozen Pearl Harbors.

With the crowding in factories, crowding in homes, and crowding in transportation facilities, war industries are under constant threat of outbreaks of contagious disease among employes. The physician, particularly the industrial doctor, should be able to rely upon his local health agency to fight this rear-guard action in support of his front-line attack against time loss in our war production drive. To help the states hold the line against preventable disease, the United States Public Health Service, under emergency appropriations by Congress, has recruited and trained seven hundred professional workers—physicians, engineers, nurses, technicians, and others—and assigned them to duty under the direct supervision of state health departments in one hundred seventy-six critical war areas.

Although the disruption of community facilities is ordinarily first associated with sociologic and economic changes, it is this same disruption which is one of the first impacts of war felt in the physician's practice. It is sometimes one of the last influences to be recognized. Industrial medicine has too long confined itself unnecessarily to emergency and part-time treatment. The prevention, diagnosis and treatment of occupational diseases is just beginning to claim the attention it has long

deserved. But even this is a halfway measure, and a job half done can do but little to help win a *total* war.

Until now I have been discussing the problem of the conservation of manpower as it affects our entire nation. You may well ask how the problem of maintaining workers' health affects the state of Indiana in particular. Indiana is the ninth largest industrial state in the union, with a labor population of about two million. Practically all the plants in this state are converted to war work; from Indiana plants come aircraft, tanks, motor vehicles, munitions, machinery, textiles, chemicals and—rumor has it—a rubber tire or two has been produced here! In the nine-month period ending April first of this year five hundred seventy-one war contracts, totalling almost one-quarter of a billion dollars, were placed in this state. The figures since April are a military secret, but every indication is that in number, dollar value and importance, Indiana has continued to march with the front line of American production. The very diversity of industry here intensifies the problem of the physician who in his daily practice will meet workers employed in a dozen different types of industry and exposed to a dozen different series of occupational hazards.

Your state is fortunate in having the services of a Bureau of Industrial Hygiene under your Board of Health. When this Bureau was established four and one-half years ago, we recommended that they define the industrial hygiene problem in this state. The results of the survey which they undertook with our cooperation at that time are still largely applicable.

Your state has an industrial population of about two million. Yet, only 10 per cent of all your workers have the services of a full-time plant physician. About 19 per cent of these two million workers have available the services of a part-time plant physician. Only 36 per cent have the services of a full-time plant nurse. Most of the medical services in industry are concentrated in the larger plants, with their more widely spread problems and greater resources. But Indiana is not a state of large plants! Ninety-seven per cent of your plants employ five hundred people or less, which technically labels them "small" plants. One out of every five Indiana workers works in a plant which employs fewer than one hundred people.

We may well anticipate intensification of this problem of medical services available to small plants. Today there is considerable discussion of an even greater use of small plants. As the base of our war production drive broadens out to include more and more of these plants, there will be a similar expansion of the industrial hygiene problem. The inference is quite plain; the statistics serve only to underline the conclusion that the large majority of Indiana workers are not getting the fullest benefits of the preventive and curative skills which you gentlemen are equipped to employ in their benefit.

Tens of thousands of Indiana workers are exposed to health hazards in this descending order: metals, dermatitis producers, organic dusts, high humidity, extreme temperature changes, silica dusts, gases, petroleum products, non-siliceous dusts, and lead.

The onset of winter, as we well know, may tremendously increase the incidence of the greatest time-loss producer of them all—the common respiratory infections. Add to this digestive disorders and the entire throng of minor complaints which follow upon the mental, physical, and economic pressures of war, and we face a situation which demands all-out effort on the part of those who have the "knowhow" to lessen the anticipated time lost from vital war work.

I believe that this is not exaggeration of the situation which many of you face today and will face with increasing frequency tomorrow. As more plants are built farther and farther from city limits, the industrial physician will find himself drafted by sheer necessity into family practice. As your younger doctors go off to military duty, the general practitioner and specialist alike will find their offices crowded with industrial health problems.

It is part of my job to travel extensively throughout the country in order to confer with the responsible agencies and organizations concerned with the conservation of manpower. Everywhere I have gone I have heard, as you have heard, one question: "What can *I* do about it?"

As physicians whose training and skill are as basic to our civilization as the food and water which sustain us, there is a great deal that you can do. To a certain extent that question is now being answered. The younger members of our profession are going into uniform. Many of the older physicians are returning to hospital and teaching staffs, and even to private practice. It is the middle-aged doctor on whom the greatest responsibility will rest. And yet, paradoxically, these middle-aged physicians are the ones who tell me most often that, as they read the daily headlines, they wish for the opportunity for a more concrete participation in the war.

Here is the answer to that question. It is an answer which will satisfy the physician who is the patriotic citizen, and a scientist spurred by the everlasting spirit of inquiry which reaches beyond Hippocrates back to antiquity. The opportunity which awaits every physician who is not in armed service is that he shall bring to the industrial plant the skills of his personal office; and, conversely, he must bring to his personal office the industrial knowledge of medicine for which there is such an urgent need.

The necessity for obtaining an accurate and detailed occupational history cannot be stressed too strongly. Many a conscientious physician has

taken pains to record the detailed personal and past medical history of a patient, but neglected to get information concerning the patient's exposure to toxic materials in industry. Such an occupational inquiry might result in the need to investigate the patient's working environment, or at least get information from plant officials on this point. As a single example of the advantage of a detailed occupational history, a recent investigation by the Public Health Service indicates that manganese poisoning may often be mistaken for multiple sclerosis or Parkinson's disease.

Whether you are a private practitioner or an industrial physician (and it seems both functions will have to merge to meet the need) your prompt reports of the occurrence of occupational diseases are vital to the efficient functioning of your official health bureaus. State-wide, careful attention to such reporting builds up a "backlog" of industrial epidemiologic data which may prevent the recurrence of such diseases.

Let me cite one recent example from your own state record. A number of workers in Plant *X* reported to their nurse with advanced cases of dermatitis. Shortly after getting this report your Bureau of Industrial Hygiene came to look over the plant. Their careful analysis showed that the peak of new "skin cases" came on certain days. By checking back from this point, they learned that a certain type of oil was delivered to the plant and put into use at periods corresponding to these peaks. An analysis of the oil discovered the trouble-making substance, and control measures were put into effect immediately. This is not an unusual case. It was taken at random from your state records, as it might be taken from any of the other thirty-five states in which the forty-two industrial hygiene units are working.

Yes, one of the most significant changes war has brought is the increase of responsibility for the individual. The workman must produce more—faster; the physician must see more patients—over greater areas; the governmental industrial hygienist must help conserve manpower which is exposed to new hazards daily. The American solution to these new and greater problems is cooperative effort.

Although the official industrial hygiene agency serves as a spearhead for bringing health services to our workers, six out of ten of these workers, when in need of medical attention, turn to the private practitioner. Plainly, both agency and physician must work together.

The physician should utilize to the fullest extent the services which are provided by the official industrial hygiene agency and, through it, the facilities of the entire health department.

The venereal disease clinic, the nursing service, the dental service, the public health education service, the sanitation section, the maternal and child-health service must reach the industrial worker and his family to a far greater extent than mere routine functions permit. The industrial hygiene bureau has a close, informed relation with management and labor and, therefore, is the logical coöperative channel through which these services can reach the worker. Their service includes: consultation with plant management regarding needed corrections of environmental conditions; advice to the management and medical supervisor concerning the relative toxicity of materials prior to their introduction into the industry; assistance in developing, maintaining and analyzing absentee records; consultant service to medical supervisors, private physicians, compensation authorities and other state agencies regarding illnesses affecting workers; and the provision of necessary laboratory service.

The local health department, correspondingly, is the channel through which industrial hygiene can be brought to bear directly on the health problems of workers in small plants. The health officer has at his command the state industrial hygienists who are trained and equipped to coöperate with him, just as he, by virtue of his position, has the most complete acquaintance with local needs and resources. In this sense, then, every division of a state or local health department should play a part in helping you build the foundation for promoting the health of workers.

Your industrial hygienists can provide consultation service on the toxicity of materials and processes, control of environmental hazards, occupational diseases, and general industrial illnesses; their laboratory services are available for both clinical and environmental investigations. In every state where it has been done, making the industrial hygiene physician of the state industrial hygiene bureau a member of the state medical association's committee on industrial health has established a highly effective bridge of communication. And in turn, this committee makes an ideal liaison channel between this association and the bureau of industrial hygiene. Let me add that I mean the phrase "liaison channel" to refer to a two-way street, with ideas, suggestions, and coöperative projects flowing in both directions.

The personal physician, for his part, can sharpen the tools at his command. He can and should make the use of accurate and detailed occupational histories standard practice. He can and should use the pre-employment examination as a pre-placement method. He can and should increase his familiarity with occupational diseases, their causes and control, and give the reporting of such illnesses the same care that he gives communicable diseases.

The physician who efficiently handles a case of occupational disability saves a working skill as well as a man. Such medical efficiency and such rescued skills, together, multiplied by thousands each month and transformed into endless numbers of war weapons, demonstrates that the private

medical practice can be as much a part of front-line combat as accurate artillery. In the contest of war there is only a first prize—whoever wins second prize *loses!*

If the contribution the medical profession is making—and will be called upon to make—is any measure of America's all-out effort to win, *victory is as sure as tomorrow's sunrise!*

THE TREATMENT OF PNEUMONIA*

NORMAN PLUMMER, M.D.
NEW YORK CITY

No disease has been transformed more completely by a therapeutic agent than has pneumonia by sulfonamide therapy. This metamorphosis occurred in a relatively few months following the introduction of sulfapyridine in the summer of 1938. With full credit to serum, it must be admitted that up to that time pneumonia, especially when bacteremia was also present, was a most serious and dreadful disease. Its course was well described by Sydenham in the 17th century: ". . . arising every year toward the beginning but more frequently at the close of winter. It chiefly attacks such as are of a gross habit of body, and middle-aged persons, but oftener those who are more advanced in years, and too much addicted to spiritous liquors, especially to brandy. . . . at the beginning of the fever, (1) the patient grows hot and cold alternately, (2) is giddy and (3) complains of an acute pain in the head when the cough is most troublesome; (4) he vomits up all liquids, sometimes with, and other times without coughing; (5) the urine is turbid and intensely red; (6) the blood taken away resembles pleuritic fluid; (7) he breathes quick and with difficulty; if he be advised to cough, his head aches, as if it would burst, for so the patient generally expressed himself; (8) a pain of the whole breast accompanies the disease and (9) a wheezing is heard by the attendants whenever the patient coughs." In 1938, in the words of Sir William Osler, "Pneumonia, one of the most widespread and fatal of all acute diseases, has become the 'Captain of the Men of Death' to use the phrase used by John Bunyan to consumption." And the treatment was not much more advanced than that described by Osler in the first edition of his book: "Pneumonia is a self-limited disease, which can neither be abated nor cut short by any known means at our command. Even under the most unfavorable circumstances it may terminate abruptly and naturally." ". . . . There is no specific treatment for pneumonia and no drug which can cut short an attack. The young practitioner should bear in mind that patients are more often damaged than helped by the promiscuous drugging which is still only too prevalent." Wise counsel that was and still is when one thinks of blood-letting, the use of alcohol, the fresh air treatment, diathermy, deep x-ray radiation, artificial pneumothorax, subcutaneous oxygen, rectal use of potassium permanganate, and other procedures which for a greater or shorter period were the vogue. Even though serum had brought about a decided reduction in fatality rate in certain of the types, and in individual cases had produced dramatic results, the gross mortality rates were never greatly affected, and the sum total of pain, discomfort, and worry, particularly when allergic and foreign protein reactions were added, was not greatly lessened by serotherapy.

Pneumonia since being treated by the sulfonamides can rate no longer the many distinctions which it had in the days of Osler. The usual case, treated adequately with sulfonamide drugs before complications occur, runs a mild course. The mortality rates in all statistical studies show a marked lowering; in uncomplicated cases, generally below 5 per cent. In a series of pneumonias, such as ours at Bellevue Hospital, which includes cases complicated by cardiac and other systemic disease, alcoholism, senility, and serious nutritional deficiencies, with many patients treated after four or six days of acute illness, where year after year even with serum the fatality rate remained between 30 and 35 per cent, there has been a reduction to less than 15 per cent. One is amazed to see the quick and positive response to chemotherapy, particularly in the bacteremic cases in Type II and Type III pneumonia, formerly such deadly diseases.

The symptomatic and supportive treatment of the pneumonia patient still deserves emphasis, but it has changed a great deal. Still the physician must give as much attention as time will allow him to the nursing details—proper arrangement of the sick room, bathing, fluid and food intake, elimination, sedation—all of which must be individualized. The usual recommendations are: absolute bed rest during the acute phase; fluids between 2,000 cc. and 3,000 cc. for the average adult; a simple nutritious diet with consideration of vitamin intake; the judicious use of cathartics and enemas, avoiding constipation or unnecessary intestinal irritation; and sedation that is neither over-prescribed nor kindlessly withheld. Now oxy-

* Presented before the General Meeting of the Indiana State Medical Association at French Lick on September 30, 1942.

gen is required in only a small percentage of the cases; pituitrin, turpentine stupes, and the rectal tube are needed only occasionally; the adrenalin series, strychnine, and caffeine sodium benzoate no longer bear the same significance. These procedures, nevertheless, must not be forgotten, because when they are needed, they are needed urgently. In addition, the value of glucose and saline infusions for the maintenance of the proper water and salt balances; and the use of 50 per cent glucose or sucrose, intravenously, for pulmonary edema, always should be kept in mind. Now very few of the fatalities following pneumonia can be attributed to the acute infection or toxemia, but are due either to localized pneumococcal complications, such as endocarditis, pericarditis, or meningitis; or to concommitant systemic disease, such as heart failure, renal insufficiency and uremia, and pulmonary insufficiency. The pneumonia death today is much different than formerly, because in the past acute toxemia concealed the systemic failure which now so clearly manifests itself.

Prontosil, sulfanilamide (prontylin), and neoprontosil were the first of the sulfonamide drugs to be tried in pneumonia. However, in our own and in other series, the clinical results were not encouraging, and today the use of any of these three preparations in pneumoccocal infections is contraindicated. Particularly, would I strongly urge the disuse of neoprontosil, a drug widely advertised for its low toxicity and great effectiveness. But, in fact, its value is derived from its decomposition in the body into sulfanilamide. Therefore, it has no greater value than sulfanilamide and there is a lower toxicity only because it is poorly absorbed and the blood levels of sulfanilamide are comparatively low after the recommended dosage.

In May, 1938, Whitby reported excellent results in his experimental pneumococcal infections with the pyridine derivative of sulfanilamide. By the fall of 1938, this preparation, in this country called sulfapyridine, was producing remarkable recoveries from pneumonia. However, soon it was recognized that sulfapyridine was not a perfect therapeutic agent, chiefly because of the extreme nausea and vomiting produced by it (which we have never found any means of preventing). Because of this, and in an attempt to find a more effective agent, the search was continued for another derivative. Fosbinder and Walter synthesized the thiazole analogue in 1939, named sulfathiazole, and this has been used extensively. It produced much less nausea and vomiting than sulfapyridine, although the other toxic reactions to it were about the same. It had a wider field of action, showing greater protective value against the staphylococcus, but against the pneumococcus there was some question as to whether sulfathiazole was as effective as sufapyridine. In spite of this question, rightfully sulfathiazole became the drug of choice for pneumonia. Soon a closely related drug, sulfamethylthiazole, was synthesized, and clinically was found to be as effective as sulfathiazole against the pneumococcus, and perhaps more effective against the staphylococcus, but its use was abandoned when it was known to cause a serious peripheral neuropathy. The next drug in the procession was sulfadiazine, which Roblin and his associates synthesized in 1940. This drug has arrested our attention to the present time and now we consider it the one of choice in the treatment of pneumonia. During the past year, sulfapyrazine, which is very similar to sulfadiazine, has had a clinical trial in pneumonia, with similar results but no important advantage. All of the sulfonamide drugs, except sulfanilamide, are so insoluble that they cannot be used at all parenterally. However, the sodium salt of each is highly soluble, and may be used intravenously or in clyses to replace or supplement oral therapy.

TABLE I

SULFONAMIDE DRUGS USED IN PNEUMONIA

Prontosil	Sodium Sulfathiazole
Sulfanilamide (Prontylin)	Sulfamethylthiazole
Neoprontosil	Sodium Sulfamethylthiazole
Sulfapyridine (Dagenan, M & B 693)	Sulfadiazine
Sodium Sulfapyridine	Sodium Sulfadiazine
Sulfathiazole	Sulfapyrazine
	Sodium Sulfapyrazine

A clinical trial of sulfadiazine was made at Bellevue Hospital in 239 patients having pneumococcal pneumonia. In this entire series, including eight patients who died before the treatment could be fully instituted, there were only 26 deaths, or a fatality rate of 10.9 per cent. This figure is to be compared with the 30 to 35 per cent mortality in Bellevue pneumonia, which was maintained right up to the introduction of effective sulfonamide therapy.

For a detailed analysis, the twenty-four-hour deaths are excluded. The total mortality in 231 patients becomes 7.8 per cent. There are 43 Type I pneumonias, with 3 deaths; 40 Type II, with 1 death; and 33 Type III, with 3 deaths. Formerly, in some years, the mortality rate from Type II and Type III pneumonia was above 50 per cent. Thirty-seven of the patients had bacteremia with a death rate of 21.6 per cent. The most remarkable showing is that of 11 bacteremia Type II cases with no deaths; whereas, formerly the mortality in this disease was over 75 per cent. The results of therapy are even more remarkable when the cases are distributed according to age. All 27 patients under 30 years of age recovered, and of 113 patients under 50, only one death occurred. In 118 patients over 50, the mortality rate was 14.4 per cent. In addition to demonstrating the remarkable efficacy of sulfadiazine, this also shows that age and blood-stream invasion remain important factors in the prognosis of pneumonia.

An analysis of the 18 fatal cases in this sulfadiazine-treated group reveals a striking picture because it shows that now only very rarely do

patients die of uncomplicated pneumococcal pneumonia. Eight of the patients had advanced degenerative cardiovascular disease; two had diabetes, one of whom was in coma; one had severe bronchial asthma; one chronic nephritis and uremia; and one acute lymphoid leukemia. Three of the fatal cases showed pneumococcal endocarditis, and one pneumococcal meningitis and empyema. That leaves one patient out of 231 who died of uncomplicated pneumonia.

TABLE II

RESULTS FOLLOWING SULFADIAZINE, BELLEVUE HOSPITAL*

	*ALL CASES***		*BACTEREMIAS***	
Type	*Cases*	*Deaths*	*Cases*	*Deaths*
I	43	3	9	2
II	40	1	11	0
III	33	3	3	1
Higher Types	115	11	14	5
Total	231	18 (7.8%)	37	8 (21.6%)

*ACCORDING TO AGE***

	Cases	*Deaths*
UNDER 30	27	0
30-50	86	1 (1.2%)
50 AND OVER	118	17 (14.4%)

The clinical response to sulfadiazine is demonstrated in Charts I and II, which show the courses in an uncomplicated Type II pneumonia and a Type I case with many complications.

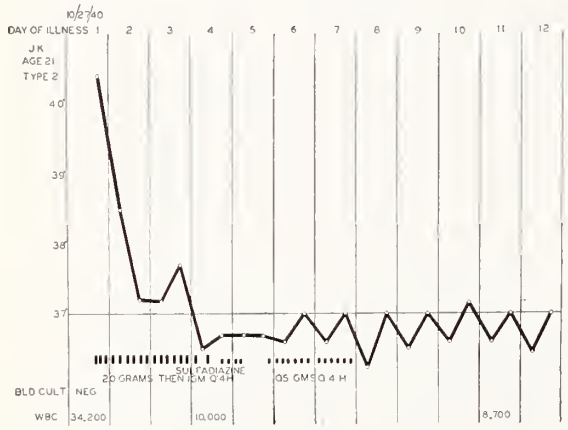


Chart I

J. K.: A young man, aged 21, was admitted to Bellevue Hospital with a history of cough and pain in the chest for several days, and a chill and the appearance of rusty sputum just before admission to the hospital. There were signs of consolidation over the right upper chest. The sputum revealed a Type II pneumococcus. The leukocyte count was 34,200 per cu. mm. Sulfadiazine was started at once with an initial dose of two grams and then one gram every four hours. The patient improved rapidly. The temperature had dropped to normal in twenty-four hours. The signs quickly cleared. By the third day there was no further evidence of toxemia and the white count had fallen to 10,000. There were no toxic manifestations from the drug.

This complicated case indicates the remarkable recoveries that now occur.

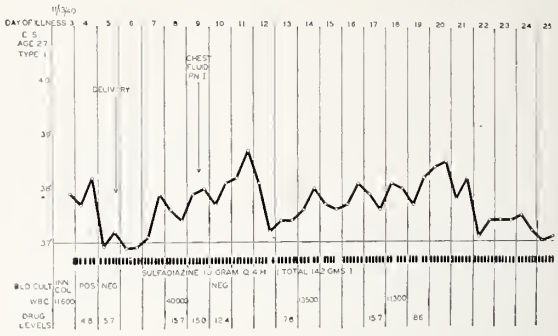


*Chart II**

E. S.: A married woman of twenty-seven was admitted to Bellevue Hospital with a history of cough and pain in the left chest for two days, and expectoration of bloody sputum for one day. She was seven months pregnant. Signs of consolidation were present over the left upper lobe. The sputum yielded Type I pneumococcus. The blood culture showed innumerable colonies of the same organism. The leukocyte count was 11,600 per cu. mm. Sulfadiazine therapy was started at once and she improved rapidly, but on the fifth day of illness she went into labor and delivered a two pound three ounce baby, who lived for twenty-two hours. Her temperature, after having been normal for two days, began to rise on the seventh day of illness. She developed a leukocytosis of 40,000 per cu. mm. and signs of fluid at the left base, and a chest tap on the ninth day yielded 12 cc. of a thin, cloudy fluid, which was positive for Type I pneumococci on culture. Signs of fluid persisted, but no fluid was secured by thoracentesis on the eleventh day. In view of her subsequent excellent progress and regression of physical and x-ray signs, no further chest tappings were attempted, and she was discharged in good condition on the thirty-second hospital day after an uneventful convalescence.

The advantages that are attributed to sulfadiazine are:

1. Low Fatality Rate.
2. Wide Scope of Action.
3. Low Incidence of Toxic Reactions.
4. Uniform Absorption, High Blood Concentration, and Low Acetylation.

The most significant advantage of sulfadiazine is the low incidence of toxic reactions. At The New York Hospital, because of a large experience with sulfadiazine, we now can create an accurate base line for the toxicity of this drug. Dr. Charles Wheeler and I have analyzed 912 cases in which an initial dose of 2.0 or 4.0 gm. was given, followed by a maintenance dose of 1.0 gm. every four hours. The incidence of different toxic reactions in these 912 cases** is as follows:

Renal Reaction, Alone	30
Renal Reaction and Drug Fever	2
Renal Reaction and Drug Rash	1
Drug Rash, Alone	16

* Ensworth, H. K.; Kalkstein, M.; Barefoot, S. W.; Liebmann, J.; and Plummer, N. *Am. Jr. Med. Sci.*, vol. 204, August, 1942.

** Twenty-four hour deaths excluded.

* Ensworth, H. K.; Kalkstein, M.; Barefoot, S. W.; Liebmann, J.; and Plummer, N. *Amer. Jr. Med. Sci.*, vol. 204 (August), 1942.

** To be published.

Drug Rash and Stomatitis	1
Drug Rash and Leukopenia	1
Drug Fever, Alone	3
Nausea and Vomiting	5
Changes in White Blood Cell Count (Leukopenia)	12
Granulocytopenia	0
Hemolytic Anemia	0
Thrombocytopenia (Fatal Case)	1
Stomatitis	1
Hepatitis	0
Conjunctivitis	1
Headache and Vertigo	1

It should be emphasized that fatalities may result from the use of sulfadiazine, although if properly administered, they occur very infrequently. The renal reaction is the most common and one of the most serious complications. Nausea and vomiting and drug fever are very uncommon after sulfadiazine. In our series, almost 1,000 patients have been treated with sulfadiazine with no instance of hemolytic anemia or granulocytopenia, but this does not mean that these serious reactions never occur. It is most encouraging that 92 per cent of patients can take the full dosage of sulfadiazine, such as should be used in pneumonia, with no manifestation of toxicity.

In the therapy of pneumonia a question which deserves some consideration is the use of serum. At Bellevue Hospital, we studied this problem statistically, believing strongly at the start that combined therapy was superior, and desiring to find out the degree of its superiority. For over two years we alternated the pneumococcal pneumonias by type between chemotherapy alone and chemotherapy combined with serum. At the conclusion of the study we were surprised to find no appreciable difference between the two groups. Distributed according to type there were about the same number of deaths on each side. The total series showed 9.3 per cent mortality for the drug only and 9.8 per cent for drug and serum. The bacteremias showed 28.1 per cent and 30.0 per cent. Distribution according to time of treatment and according to age showed the same similarities in percentages. We had had a strong impression that combined therapy produced a more abrupt fall in temperature, but when composite curves were constructed there was no difference. On the basis of our findings we concluded that serum had no rôle, except in the patients who could not tolerate the sulfonamide drugs and those who did not respond to them within twenty-four to forty-eight hours. How often do such cases occur? They occur very infrequently. At The New York Hospital, where we have been well trained in the use of serum, serum has been used three times in the past three years. In private practice I have used serum one time in three years, and in no case in my personal experience, in the hospital or outside, has the use or disuse of serum been the deciding

TABLE III

SULFONAMIDE COMBINED WITH SERUM, BELLEVUE HOSPITAL*

	DRUG ONLY		*DRUG AND SERUM*	
	Cases	*Deaths*	*Cases*	*Deaths*
TYPE I	48	5	48	6
TYPE II	48	3	52	7
TYPE III	30	3	29	5
HIGHER TYPES	174	17	156	10
TOTAL	300	28 (9.3%)	285	28 (9.8%)
BACTEREMIAS	57	16 (28.1%)	50	15 (30.0%)
TREATED EARLY	158	7 (4.4%)	146	10 (6.8%)
TREATED LATE	117	14 (12.0%)	110	11 (10.0%)
UNDER 30	33	0	32	0
30 TO 50	118	4 (3.4%)	122	6 (4.9%)
50 AND OVER	149	24 (16.1%)	131	22 (16.8%)

factor in the outcome. In spite of this experience, because of my acceptance of the past and theoretical value of serum, I am not ready fully to discard it.

In the era of serum a number of tests for immunity were devised, including the Francis intracutaneous test and blood tests for agglutinins, precipitins, free carbohydrate substance, and capsular protein. While these tests have added a great deal to our knowledge of the pathogenesis of pneumonia, the mechanism of recovery, and the action of serum, they never have aided greatly the practical management of a case. This is even more true since the beginning of sulfonamide therapy.

This leads to the important question: What procedures are necessary in the management of pneumonia? The answer is not an easy one, and when I have simply outlined the tests that we carry out in the hospital it always has caused a great protest from my audience. Certainly, the diagnostic study must be individualized dependent upon the condition and circumstances of the patient. In the beginning it can be pointed out that at least 85 per cent of pneumococcal pneumonias will recover satisfactorily if they are put to bed and given adequate sulfonamide treatment. But the remaining 15 per cent present the difficulties, and without additional management they will develop complications and toxic reactions, and most of them will die.

The most important guide to treatment and one which in the present day, because of the emphasis on laboratory procedures, is apt to be neglected is: *Careful daily examination of the patient, including a gross inspection of the urine.* It is of greatest significance to know from signs and symptoms whether a patient is improving or getting worse. Very few complications or reactions develop in the face of a subsiding temperature and symptomatology. Empyema or meningitis are almost always heralded by a sudden change in the course. The serious toxic reactions to the sulfonamides can almost invariably be discovered by careful examination of the patient. Granulocytopenia usually causes fever, pallor, and reddened throat, and is frequently accompanied by a rash. Hepa-

* Plummer, N.; Liebmann, J.; Solomon, S.; Kammerer, W. H.; Kalkstein, M.; and Ensworth, H. K. *J. A. M. A.*, vol. 116, May, 1941.

titis causes jaundice; hemolytic anemia, pallor and weakness. Inspection of the urine reveals hematuria and oliguria.

If at the present time I were practicing in a small community and treating most of my pneumonia patients at home, I am certain that in many cases I would be tempted to go along with only the daily physical examination. But, more than anything else, I would want an initial blood count and urine analysis, because if there were marked anemia or leukopenia or kidney disease, I would want to know of it before going ahead with sulfonamide therapy. Although these findings do not contraindicate treatment, I would not want to be blamed for producing some such condition when it already existed. Furthermore, it is extremely puzzling to discover a severe anemia, leukopenia, or azotemia on the third or fourth day of the disease and not to know whether it antedated the infection or the therapy. In addition, when the kidney function is affected the dosage of sulfonamide must be reduced.

Certainly, careful observation and the initial blood and urine study will suffice in the majority of cases of pneumococcal pneumonia. In about 85 per cent of the cases the temperature will be normal by the third day of treatment, and the patient will be well enough to discontinue the drug and no further tests will be necessary. But in the remaining cases the treatment is not so easy. Even at the end of twenty-four hours of sulfonamide therapy, if the patient is not improving, the doctor must be on the alert to find an explanation. At this time sputum typing and a blood culture should be carried out if they have not already been done, because it becomes increasingly important to know the specific etiological agent. This is a good check on the clinical diagnosis and is necessary if serum is to be considered. By the end of forty-eight hours, if the patient is not responding, the bacteriological studies should be complete, the blood count and urine analysis should be repeated, and the concentration of drug in the blood should be ascertained.

TABLE IV

GUIDES TO TREATMENT

1. Careful daily observation of signs and symptoms, including gross inspection of urine.
2. Blood counts and urine analyses.
   Initial repeat.
3. Blood level of drug.
4. Sputum typing and blood culture aids diagnosis and treatment in 10% of cases.
5. Blood chemistry.

The principal cause of failure of therapy is a *mistaken diagnosis.* Tuberculous pneumonia or pleurisy with effusion always must be kept in mind in the differential diagnosis of pneumococcal pneumonia. The virus type of pneumonia, which has become increasingly important recently, does not respond to the sulfonamides and this is its chief diagnostic characteristic. The negative bacteriological findings and the low white blood cell count also help in making this diagnosis. Pulmonary infarct, and also coronary thrombosis, can be mistaken diagnoses. Abscess secondary to bronchiectasis or carcinoma of the lung can simulate primary pneumonia. I have seen several cases of acute agranulocytosis which, because of the high temperature and acute toxemia, have been passed as pneumonia.

TABLE V

CAUSES OF FAILURE

1. Mistaken Diagnosis.
2. Complications (Empyema, Meningitis, Endocarditis, Multiple Abscesses).
3. Toxic reaction.
4. Insufficient drug.
5. Resistant organism.

Empyema, endocarditis, meningitis, pericarditis, and multiple abscesses complicating pneumonia may explain a failure of response. Empyema, which is usually recognized from signs and a particularly high white blood cell count, always requires drainage in addition to the medical treatment. Pneumococcal endocarditis gives a persistently positive blood culture in spite of intensive therapy, and I know of no case on record in which recovery has occurred. Pneumococcal meningitis occasionally responds but requires intensive therapy.

A persistent or recurring fever following pneumonia should quickly lead to a consideration of sulfonamide toxicity as an explanation. Drug fever is commonly associated with some other toxic manifestation, such as leukopenia, granulocytopenia, rash, conjunctivitis, or headache, and this greatly aids in the diagnosis.

Insufficient drug, most accurately ascertained by a determination of blood concentration, was much more of a factor in the days of sulfapyridine and sulfathiazole than now with sulfadiazine. Nevertheless, it is one of the necessary checks when the progress is not satisfactory. Related to drug concentration is the variability in bacterial resistance. Undoubtedly, some strains of pneumococci are more resistant than others to the sulfonamides, but this has no relationship to type, and the recommended dosage of drug allows quite well for this. In the test tube it has been possible to make organisms highly resistant to the sulfonamides, but this has not become an important factor in clinical infections.

CONCLUSION

In conclusion, I wish to emphasize the most important conditions for obtaining the best results.

1. *Early and accurate clinical diagnosis.* This always necessitates a careful consideration of signs and symptoms, and may require, in addition to the usual blood count and urine analysis, an accurate sputum typing and blood culture. All of the diagnostic procedures need not be routine in all cases, but there is a time and place for each one.

2. *Prompt and adequate use of the sulfonamides.* They should be started as soon as the clinical diagnosis of pneumonia is made, and some-

times when the diagnosis is only presumptive because of indefinite signs. The treatment should not be delayed until the laboratory work-up is completed, particularly if this necessitates any delay.

Sulfadiazine at the present time is the sulfonamide of choice.

Sodium sulfadiazine should be used intravenously when oral therapy is not feasible or when the critical condition of the patient demands that a high blood concentration be obtained immediately.

3. *Prompt recognition and treatment of complications.* Whenever the clinical course does not respond to the sulfonamide in a reasonable time, an explanation for the failure must be discovered. Empyema and abscesses require surgical drainage in addition to sulfonamide therapy.

4. *Prompt recognition of toxic reactions.* A knowledge of the incidence and types of reactions that follow the sulfonamides is of greatest importance. It is necessary to recognize the reactions promptly because in most instances the drug must be discontinued immediately to prevent a serious or fatal outcome.

Even though our entire concept of pneumonia has changed, the physician must continue to be alert, conscientious and capable in treating this disease, if he expects to obtain the best results.

WHAT IS GOOD ANESTHESIA? *

(Comment based on twenty-five thousand personally administered anesthesias.)

FLOYD T. ROMBERGER, M.D.
LAFAYETTE, INDIANA

This thesis is written for but two primary purposes: (a) to teach, if that is possible; and (b) to provoke discussion.

On April 17, 1942, I administered my twenty-five thousandth anesthetic, personally, with my own hands. All have been recorded. All have been studied. And it is from this background of informative experience that I wish to make a few pertinent comments, for better or for worse. The anesthetic agents employed were many. The methods and combinations of methods of administration were many, very many. The surgeons with whom I was associated, and whose cooperation was most helpful in this series, were many. The surgical problems to be solved were many, very many. The toils and tensions and sweat and anguish and heartaches were many, but, also, so were the joys and zests and refreshments and the professional rewards. It was, indeed, with due humility of spirit, yet with the sparkling pleasure of accomplishment, that I passed this significant milestone of experience. Nothing but the complete disintegration of my mental faculties can take from me the resulting satisfactions.

Should one pose the searching question, "What is good anesthesia?" before a dozen surgeons and a dozen anesthetists and a dozen lay persons, about to be operated upon, in a dozen surgical centers, it would be reasonable to expect at least three or four dozen answers. They might vary from the sublime to the ridiculous, and perhaps rightly so, human nature and physiology and mental idiosyncrasy being what they are.

Who among us has not seen scientifically imperfect anesthesia which made the surgeon happy and contented, the patient blissfully unconscious, unaware, and hence satisfied, while the anesthetist writhed in disgust? Who has not heard the surgeon carping and crabbing about the anesthetic, the patient again blissfully unconscious, unaware, and hence satisfied, while the anesthetist happily was proceeding with that which he believed to be the ultra-ultra in scientific anesthesia? Or, who has not experienced the burning ire and caustic condemnation of a patient subjected to an anesthesia which both surgeon and anesthetist considered to be premier? And so on, with variations of degree, *ad infinitum*.

It is my matured opinion that there is no one single answer to the question of good anesthesia in all instances and in all communities. However, there is a logical basis upon which a reasonably successful solution does depend, and that foundation for good anesthesia consists of the proper evaluation of:

(a) The surgeon. Does he have any particular preference, or can he do his best with any one particular type or method? Or all?

(b) The anesthetist. Is he equally competent with any and all agents, and can he evaluate the particular need?

(c) What are the advantages or disadvantages of the varying physical and chemical properties of the different anesthetic agents?

(d) What is the surgical problem?

(e) What is the patient's preference?

* Presented before the Section on Anesthesia of the Indiana State Medical Association at French Lick, September 30, 1942.

(f) What is needed from the anesthetic agent? Mere sleep? Relaxation? Or, what?

It is obvious, therefore, that "good anesthesia" is terminology susceptible to varying interpretation and exposition in different surgical centers, and it behooves us to take a broad general view and review of the agents at our command, as to how they best may be adapted to the several and perhaps perplexing problems at hand.

First, a few simple definitions:

In the strictest sense of the word, anesthesia means the absence of pain. In the more generally accepted interpretation, general anesthesia may be defined as a state of unconsciousness accompanied by an absence of pain and the abolition of the reflexes. Limited in this manner, we are able to distinguish between other states of unconsciousness, such as sleep, uremia, apoplexy, and the like, in which the reflexes may or may not remain active and in which the unconsciousness may be partial or complete.

Other definitions are of help to us in the consideration of this subject:

Analgesia is a state of partial anesthesia in which pain is absent or obtunded, yet certain special senses are retained, and the reflexes usually are present to a limited degree.

Amnesia also is a state of partial anesthesia. However, in this condition the cerebrum is affected predominantly and first, and, as a result, forgetfulness and loss of memory are the outstanding features.

These elementary definitions are helpful to a more complete understanding of the subject at hand.

Anesthesia, analgesia, and amnesia may be produced in many ways.

(1) Topical anesthesia is surface anesthesia. an anesthesia of the nerve endings.

(2) Local anesthesia is obtained by the injection of a drug so that it contacts nerve endings and terminal nerve filaments, usually over a somewhat limited area.

(3) Regional anesthesia includes more extensive areas or portions of the body and, normally, is obtained by injecting around a nerve trunk or a plexus or a group of plexi. Regional anesthesia embraces the following subdivisions: (a) paravertebral, (b) transsacral, (c) caudal or epidural, and (d) spinal or subarachnoid. The names define the procedures.

(4) General anesthesia may be obtained: (a) by oral ingestion or enteral administration, (b) by rectal instillation, (c) by subcutaneous injection, (d) by intravenous injection, and (e) by inhalation.

It is uniformly axiomatic that, to produce general anesthesia, the agent, whatever its nature and given by whatever route, first must enter the blood stream and by it be carried to the central nervous system.

Very many drugs and agents, perhaps even hundreds of them, possess narcotic, sleep-producing, and/or anesthetic properties of varying degree and potential. However, measured by the yardstick of efficacy, in reality the number is quite low. By "yardstick of efficacy" I mean: Can the drug or agent, alone, unsupported by preliminary or basal narcotics and unassisted or unsynergized or unpotentiated by "something added" during the anesthesia, produce deep and musculature relaxing anesthesia for difficult abdominal surgery in the robust patient? That is the true test for any anesthetic agent.

Extended experience leads to the conclusion that, restricted in this manner, our good general anesthetics are very few: ether and chloroform, yes; cyclopropane and intravenous barbiturates, perhaps. Local, regional, and spinal, yes, when used within their limitations.

I do not decry the use of combined or synergistic anesthesia or the employment of those partial anesthetic agents of lesser potential; in fact I administer combinations of two, three, or even more agents many, many more times than single drugs during the course of an average general anesthesia. But, from the viewpoint of purely scientific exactness, the fact is outstandingly true.

Now, after that debatable preamble, let us look at the several and different agents of varying potential which are more or less commonly used to produce general anesthesia, examining them from two main viewpoints: (a) their chemistry, and (b) the degree centigrade at which they boil or volatilize. Among other factors, these two aspects are of prime importance in their electability, their adaptability, and, also, in their administration.

Drug	*Chemistry*	*Volatility*
Alcohol	C_2H_5OH	76. C.
Ether	$(C_2H_5)_2O$	36.5C.
Divinyl ether	$(C_2H_3)_2O$	28.3C.
Chloroform	$CHCl_3$	61. C.
Trichlorethylene	$CHCCl_3$	
Ethyl chloride	C_2H_5Cl	-12.5C.
Nitrous Oxide	N_2O	-89. C.
Methane	CH_4	
Acetylene	C_2H_2	
Ethylene	C_2H_4	-103. C.
Cyclopropane	C_3H_6	-34. C.
Avertin	CBr_3CH_2OH	
Amytal, a complex	CH-CO-NH	combination

Some surprise might arise at the placing of alcohol in this list, and at the top. Yet alcohol, by mouth or intravenously, in sufficient quantity, is a good anesthetic insofar as analgesia and anesthesia is concerned. In fact, it so was employed (by mouth) for hundreds of years before ether and our other agents were discovered. Why, then, has it fallen into disuse? Well, observe its volatility, 76 degrees centigrade. This makes it practically non-vaporizable upon an open mask, and, when ingested, it takes effect relatively slowly. Also, once effective, again on account of this low

volatility, the anesthesia passes off extremely slowly—all of which factors make for a lesser controllability and withdrawability.

I have, however, a greater purpose in mentioning alcohol. It contains the ethyl radicle of C_2H_5. Now observe that this radicle predominates diethyl ether and ethyl chloride, and is related to the vinyl formula for divinyl ether.

In fact, in the manufacture of diethyl ether (sulfuric ether), sulfuric acid is brought into contact under controlled conditions with alcohol, H_2O is extracted, and diethyl ether results.

Now observe the volatility of ether, 36 degrees centigrade. Here, now, we have an agent which is vaporizable on an open mask or by any semi-open method or by the strictly closed anesthetic procedures. Anesthesia is relatively rapid, and recovery is in like proportion to the volatility. Ether is a lipoid solvent; that is, its effect is obtained by its solvent action upon the lipoids of the nuclei of the brain cells.

Time and space do not permit the expansion of this thesis upon the wonders and marvels of ether. In use one hundred years, administered by experts and tyros alike many millions of times, susceptible to a hundred and one adaptations and combinations, flexible almost beyond imagination in the hands of those experienced, it remains and probably will remain for many years to come our most universally useful agent. It is the one reliable age-old standard by which all other agents, methods, and results are judged. Ether often is maligned unwarrantedly in certain centers, by some surgeons and, to a degree, also, by the laity. This is because surgeons and the laity are prone to blame any unfortunate postoperative sequelae upon the agent, ether, rather than to examine the possible maladministration, the poor or rough surgery, the improper premedication, and/or careless postoperative attention. I say this advisedly, with candor, without fear, and exempt neither myself nor my own contemporaries.

Divinyl ether is more volatile than diethyl ether (it boils at 28.3 degrees centigrade); hence its onset is more rapid and the recovery is more quickly accomplished. It is a very nice analgesic on an open mask. It combines or synergizes readily with all other agents. The surgical anesthesia produced is comparable to but neither different from nor better than that produced by diethyl ether, properly administered.

Chloroform, $CHCl_3$, differs widely from the above mentioned ethers in that it does not have the ethyl radicle in its composition and in that the molecule contains three atoms of the halogen Cl. In any combination or agent the addition of the halogens Cl. or Br. markedly increases the potency, the toxicity, and the dangerous potential of that particular agent. Yet, with it all, chloroform is a marvelous analgesic and anesthetic agent. In my humble opinion the condemning of chloroform anesthesia by the American Medical Association in 1912 was an error of judgment which should be rectified. Why? Well, if for no other reason than that since that time all research with that agent practically has ceased—and this should not be. The exploration of its clinical application, alone and/or in combination with other volatile agents and gases, should continue. I still find chloroform useful, particularly in acute respiratory conditions in small children and in analgesia in normal labor. In both, chloroform is ideal. Chloroform combines readily with ether, ether and alcohol, and synergistically with the several gaseous agents. No anesthetic agent surpasses and few approach chloroform in efficacy and potency, and wider research in its administration should be pursued. It amuses me when anesthetists and surgeons hold up their hands in holy horror at the mere name of chloroform, yet they do not hesitate to give or sanction by inhalation, to instill rectally, or to inject intravenously sundry drugs of untried potential, all equally or far more capable of injury and harm.

Ethyl chloride (C_2H_5Cl), by virtue of its extreme volatility (-12.5C), is a useful anesthetic agent for inductions and comparatively short (not over five minutes) surgical procedures. Remember that it has the halogen Cl, and, because of its speed, the respiratory and pupillary signs of anesthesia must be watched most closely.

Nitrous Oxide (N_2O) differs in its chemistry from all other agents. Extremely volatile, it is also extremely rapid in its effect. It is pleasant to inhale. It does not enter into chemical combination with any body tissue or fluid, entering and leaving the blood stream as such. It is strictly a sub-oxygenation anesthesia, and, most unfortunately, it does not relax muscle tissue *per se*. With these properties in mind, we find it a useful agent for those cases where extreme relaxation is not required, for gas-ether inductions, as a vehicle for the several synergistic, volatile drugs, and very especially in combination with local and field block. It is the patient's anesthetic *de luxe*.

Methane (CH_4), acetylene (C_2H_2), ethylene (C_2H_4), and cyclopropane (C_3H_6) are a group of related, volatile CH compounds, all possessing anesthetic properties. Of these, ethylene and cyclopropane have found the greatest favor. Since the literature is replete with discussions on indications and contraindications for these latter two agents, the only warning given here is with regard to their flammability.

Avertin ($CBr_3\ CH_2\ OH$), administered rectally, finds favor in many centers. The best thought is that its usefulness should not be pushed beyond the needs for basal anesthesia only. Much difference of opinion exists as to the benefits or disadvantages of the long postoperative sleep. I wish to direct attention to the three atoms of Br. in each molecule.

Amytal is mentioned here as a type represent-

ing all the intravenously used barbiturates, of which evipal and pentothal sodium have found the most recent favor. There appears to be a growing application of these agents in major surgery. Conservative opinion must await the passage of years to determine their place. We use them in our city very selectively at present. From the patient's viewpoint the anesthesia is very pleasant. Postoperative sequelae, so far, have been very few and inconsequential.

Within so short an allotment of time and space, it will be necessary to be brief. To be brief, it will be necessary to be concise. To be concise, it will be necessary to be dogmatic, perhaps even to the point of absolutism. It is necessary to be dogmatic in order to teach.

All this is recognized as is also the fact that there are but few problems in medicine and surgery today which are not subject to argumentative debate, and the same is true of anesthesia.

With these few words, then, let us pass at once to a consideration of our surgical dilemmas and what I shall presume to call "adaptive anesthesia."

ACUTE RESPIRATORY DISEASE

Acute respiratory disease includes sinusitis, rhinitis, pharyngitis, tonsillitis, Vincent's infection, bronchitis, and all acute influenzae. When surgery is indicated upon such patients, what anesthetic should be used? The problem is: (a) how to avoid aggravating the present condition, or (b) do we invite still more grave postoperative sequelae?

The order of choice should be:

1. Local or spinal.
2. Nitrous oxide-oxygen, alone or combined with local.
3. Cyclopropane-oxygen.
4. Intravenous.
5. If must use ether, give heavy preliminary and very light anesthesia, watching for mucous or salivary secretion and avoiding cyanosis.

In empyema in children: (a) chloroform, (b) cyclopropane-oxygen, or (c) local.

AGED PATIENTS

Age *per se* is no contraindication to anesthesia. These patients usually have lived long because of excellent physical condition or exceptional personal care. They are good risks unless suffering a devastating surgical illness. However, do not subject them to unwarranted trauma. They often are difficult to subdue, but they go into deep anesthesia and into surgical shock quite easily.

Order of election:

1. Spinal is very acceptable.
2. Nitrous oxide-oxygen, alone or combined with local.
3. Cyclopropane-oxygen.
4. Intravenous.
5. If you give ether, hold light anesthesia.

VERY YOUNG PATIENTS

Babies, 1 day to 6 years.

Elect:

1. Light ether.
2. In acute respiratory infections, give light chloroform.

ANEMIAS

All types of anemia: uterine hemorrhage, ruptured ectopics, septicemias, tuberculosis, gastric ulcer, cancer and the like.

The problem, mainly, is one of the lowered oxygen-carrying power of the blood stream. Authorities claim that, with proper care, these cases can be handled with a hemoglobin content as low as 20 per cent. If under 40 per cent, by all means endeavor to raise this preoperatively:

1. Push fluids and glucose.
2. Give no vigorous catharsis.
3. Control hemorrhage by any means.
4. Expedite surgery.
5. Divide operation into stages.

Anesthesia:

1. Local or spinal.
2. Nitrous oxide-oxygen plus local.
3. Cyclopropane-oxygen.
4. Intravenous; watch respiratory depression.
5. Light ether or gas-oxygen-ether sequences.

BLADDER, KIDNEY, AND PROSTATIC DISEASE

Here we have the problem of possible organic disease, moderate or grave. Give that anesthesia which throws the lightest load upon the excretory mechanisms of the body.

Anesthesia:

1. Spinal unquestionably is the method of choice.
2. Nitrous oxide-oxygen, pure or combined with local.
3. Cyclopropane-oxygen.
4. Gas-oxygen-ether sequences.
5. Lightest ether.

BRAIN SURGERY

Deep anesthesia usually is not required. If patient is unconscious or partially so, local anesthesia will suffice. Otherwise use:

1. Any of the gas-oxygen-ether sequences with sufficient oxygen to keep patient pink. This is important; sub-oxygenation does harm and makes surgery difficult.
2. Open ether is very satisfactory.
3. More recently, intravenous.

The late Dr. Charles H. Frazier always taught that moderate saturation with ether, under a free air-way, lessens the intracranial pressure and materially aids the surgeon.

DIABETIC PATIENTS

The problem here is to prevent postoperative diabetic coma. These patients are more easily handled from the surgical viewpoint since the advent of insulin. The quicker the surgery, the less

the trauma, the lighter the anesthesia, and the more likely the success.

1. Spinal or local unquestionably are the anesthetics of choice.
2. Nitrous oxide-oxygen, alone or combined with local, is next.
3. Cyclopropane-oxygen.
4. Intravenous.
5. Ether, only if nothing else is available.

EYE SURGERY

Eye surgery includes: (1) enucleation, (2) iridectomy, (3) cataract, (4) muscle shortening, and (5) injuries.

The problem here is to have a quiet eyeball to facilitate the surgery.

Anesthesia:

1. Intravenous evipal or pentothal.
2. Heavy preliminary plus ether or gas-ether sequences to the point of a quiet eyeball.

HEART DISEASE

The surgical and anesthetic accidents to those supposedly fit are the ones which give the heart-aches.

1. Response to effort is a doubtful guide.
2. Is the heart disease complicated by alcoholism, excess cigarette smoking, diabetes, nephritis, tuberculosis, acidosis, anemia, or shock?
3. Sudden death may occur:
   (a) Apoplexy.
   (b) Coronary thrombosis.
   (c) Ruptured aneurism.
   (d) Fat embolus.
   (e) Pulmonary atelectasis.
   (f) Angina pectoris.
   (g) Arborization block.
   (h) Cardiac dilatation.
   (i) Auricular fibrillation is very grave in cardiac insufficiency.
4. Chronic endocarditis is no contraindication if well compensated.
   (a) Diastolic and presystolic murmurs are the most grave.
   (b) Aortic disease is more grave than regurgitation.

Anesthesia:

1. Spinal, unquestionably.
2. One of the gas-oxygen-ether sequences. Keep patient pink under all circumstances.
3. Local or regional.
4. Intravenous, watch carefully.
5. Lightest ether only.

Safeguards:

(a) Rest.
(b) Study of the case.
(c) Preliminary medication.
(d) Success depends on the training, judgment, vigilance and experience of the anesthetist.

INTESTINAL OBSTRUCTION AND GENERAL PERITONITIS

Oftentimes surgery for the relief or cure of intestinal obstruction and general peritonitis is of the gravest character, and anesthetic success is most difficult of attainment. The surgical need may come on gradually or with dramatic suddenness. Life may hang by the most fragile thread. Youth, age, and middle-age alike are affected. Intussusception, volvulus, adhesions, ruptured appendix, ruptured gastric or duodenal ulcer, perforated gallbladder, new growths, and penetrating wounds are the common etiologic factors.

The primary surgery at times must be for relief only. Speed in operating, minimum trauma, and the least possible anesthetic shock are the most essential elements to success.

Anesthesia:

1. Spinal anesthesia is unquestionably the anesthetic of choice. Nothing else in our entire armamentarium gives the relaxation so essential to speedy surgical relief, with the possible exception of ether or chloroform, to the depth of obliterative narcosis. And this is unwarranted.
2. Local, merely for a relieving colostomy or enterostomy often indicated.
3. Nitrous oxide-oxygen plus local for more extensive surgery.
4. Cyclopropane-oxygen.
5. Light gas-ether sequences.

NEPHRITIC PATIENTS

Here we have definite, crippling pathology. The chronicity of the case and the type of the nephritis are the guiding indices, not necessarily the albuminuria or the mere presence of casts. Use the laboratory.

1. Spinal anesthesia is the anesthetic of choice in all nephritics.
2. Gas-oxygen without ether and only moderate preliminary morphine, but plus local, is next.
3. Gas-oxygen-ether, moderate preliminary, only if competent anesthetist and skilled surgeon not available.
4. Intravenous and chloroform, questionable.

PREGNANCY

An acute surgical abdomen is not altogether uncommon in the pregnant female. What about the anesthesia? What are the probabilities of postoperative miscarriage? Extended experience and close follow-up indicates that the pregnant woman miscarries postoperatively from: (1) very deep ether anesthesia, (2) intra-abdominal manipulation and trauma, or (3) both. At times, of course, due to anatomic distortion, these things must be done, but avoidance when possible is far to be preferred.

Anesthesia:

1. Spinal, very favorable.

2. Nitrous oxide-oxygen; keep the patient lightly anesthetized and pink.
3. Cyclopropane-oxygen.
4. Gas-oxygen-ether sequences.
5. Moderate ether.

For eclamptics:

1. Spinal, unquestionably.
2. Pure gas-oxygen.

The problems here are: (a) high blood pressure, (b) faulty excretion, and (c) definite kidney damage.

POSTOPERATIVE ATELECTASIS

This occasional phenomenon is common to all methods of anesthesia. Contributing causes are those factors which interfere with adequate pulmonary ventilation, such as:

(a) High spinal.
(b) Deep ether.
(c) Excessive preliminary by the barbiturates or avertin.
(d) Overremoval of carbon dioxide with circle filter technique.

Treatment, other than avoidance of the above:

1. Hyperventilation with oxygen and carbon dioxide.
2. Encouragement for deep breathing postoperatively.
3. Postural changes in bed.

Postoperative Lung Abscess Theories:

1. Inspiration, infective material.
2. Infection, blood-borne.

Prevented by aspiration, usually.

Following tonsillectomy, bronchoscopic examination reveals blood in the trachea after deep anesthesia and in the esophagus after light anesthesia. This is according to whether the posterior pharyngeal and swallowing reflexes are or are not abolished.

POSTOPERATIVE BACKACHE

Postoperative backache is usually blamed on the anesthetic, especially on spinal, but is more probably due to relaxation of lumbar spine on a hard operating table. The most intractable case ever seen was after an open ether anesthetic.

Prevention:

1. Soft pads on operating table.
2. Change posture in bed.
3. Deep massage and passive motion, postoperatively.

POSTOPERATIVE HEADACHE

Also usually ascribed to spinal only, is common to all postoperative and postanesthetic conditions.

Causes:

1. Metabolic changes.
2. Anoxemia.
3. Toxemia and dehydration.
4. Morphine.

Worst case ever seen was following nitrous oxide-oxygen-ether anesthesia.

POSTOPERATIVE HICCOUGH

Causative factors of this condition remain undetermined but is most usually found in aged patients following extensive surgery. It is serious.

Treatment:

1. Sedatives.
2. Carbon dioxide inhalations.
3. Full anesthesia.

POSTOPERATIVE PAROTITIS

This is not due to anesthetist pushing on parotid gland, as is often asserted.

Probable factors:

1. Ascending infection Stensen's duct.
2. Sepsis, hematogenous. Most of these are pus cases, especially salpingitis, drainage appendectomies, or pelvic abscess.

POSTOPERATIVE PNEUMONIA

Schools of thought:

1. Inspiration.
2. Emboli from operative field.
3. Anesthesia *per se*.

Contributing factors:

1. Acute and chronic bronchitis.
2. Emphysema.
3. Hypostatic congestion.

Preventions:

1. Avoid shock.
2. Expedite surgery.
3. Avoid exposure.
4. Keep patient warm.
5. Change position in bed frequently.

SHOCK

If forced to operate in the face of shock, such as follows ruptured appendix, trauma, ectopic, ovarian cyst twisted on pedicle, or strangulated hernia, or any other cause:

1. Push fluids.
2. Give stimulation.
3. Apply external heat.

Anesthesia:

1. Gas-oxygen-ether sequences.
2. Spinal, most carefully.
3. Lightest ether.

Keep anesthesia light. Push oxygen and carbon dioxide, expedite surgery, and watch pulse. Rates of 200-240 are not unusual.

THYROID SURGERY

Thyroid surgery is often complicated by:

1. Heart disease.
2. Vascular changes.
3. Nervous phenomena.
4. Acidosis and nutritional factors.

Anesthesia:

1. Nitrous oxide-oxygen, pure or combined with local, is the anesthesia of choice. Use heavy preliminary with morphine and the barbiturates.
2. Cyclopropane-oxygen.
3. Intravenous, if preferred.

TUBERCULOSIS

The problem here is obvious, not to aggravate a present focus or re-light an old one.

Anesthesia:

1. Spinal.
2. Gas-oxygen-ether sequences, avoiding all traces of cyanosis.
3. Chloroform.

URINARY SUPPRESSION

This is most common after deep ether or ether sequences. It probably never occurs with reasonable normal kidney function.

Causes:

1. Shock.
2. Kidney damage.

URINARY RETENTION

Inability to void postoperatively is not due to the anesthetic *per se*, although spinal often is blamed, but is common to all methods. Probable cause is nervousness in background. Most intractable case seen followed a gas-oxygen-ether sequence.

Prevention:

1. Push fluids.
2. Watchful care.

Mayos state that the optimum period for catheterization is fourteen hours. Delay causes distention and cystitis; too early catheterization causes infection unless done aseptically.

STATUS LYMPHATICUS

Extended experience leads to the thought that this often is not foreseen, and the anesthetist may, quite suddenly and dramatically, find himself confronted with a most grave situation.

Signs:

1. Sargent's white line; scratch the skin with a toothpick or match. Normally an immediate red line appears; delay or failure is suggestive.
2. Oroya's sign; sudden light immediately contracts the pupil; delay suggests adrenal insufficiency.
3. Schridde's sign; a ring of tonsillar tissue on the posterior pharynx between the tonsils. I have found this most diagnostic in many cases.
4. A history of breath-holding.
5. Parental diabetes, thyroid, or other endocrine deficiency.

Symptoms:

1. Dyspnea.
2. Suffocative spasms with or without fits of crying or temper.
3. Stridor.
4. Paroxsymal coughing or choking.
5. Cyanosis, not cardiac.
6. Shock or collapse from seemingly insufficient cause.

Anesthesia:

1. Give slowly, avoiding sudden impact and anesthetic shock.
2. Be prepared for instant oxygen insufflation and artificial respiration.

SULFONAMIDE THERAPY

Quite recently we have been confronted with this anesthetic problem; it can be quite serious, anesthetically. These patients must be handled very carefully because of the probability of sudden circulatory collapse from respiratory depression. The complicating factors are:

1. Hemolytic anemia.
2. Leukopenia.

Essentially, this is an aplasia of the blood, manifest either in the red or white chain. Usually there is a marked lowering of the white count, down at times to 2,000. Later, there is destruction of the reds, to 2½ to 3 million. Hemoglobin may be as low as 60 to 65.

Anesthesia:

1. Give with extreme caution because of possible respiratory depression plus deficiency in the oxygen-carrying power of the hemoglobin.
2. There undoubtedly is interference with the carbon dioxide combining power and the P_h of the blood plasma. Therefore, avoid cyanosis with plus oxygen administration.

CONCLUSION

Good anesthesia is contingent upon: (1) a thorough knowledge of and experience in all the reasonably applicable anesthetic agents and methods by the anesthetist, and (2) applying this knowledge and experience, (a) in accordance with the particular wish and sanction of the surgeon, (b) for the particular surgical condition presented, and (c) in the particular community under consideration. This is inescapable.

ABSTRACT: DIABETES SHOULD BE STRICTLY CONTROLLED

An additional reason why diabetes should be kept under strict control is suggested by a report by James R. Lisa, M.D.; Morton Magiday, M.D.; Irving Galloway, B.S., and James Finlay Hart, M.D., New York, in *The Journal of the American Medical Association* for September 19 that arteriosclerosis or hardening of the arteries is more common in diabetic than in nondiabetic persons. Their findings were based on a postmortem study of 193 diabetic and 2,250 nondiabetic patients.

Among their other findings are that arteriosclerosis is more frequently severe in diabetic than in nondiabetic persons; severe arteriosclerosis is more frequent among persons with diabetes at all ages, and that "sclerotic changes in both the diabetic and the nondiabetic person increase in frequency as age advances, but among persons with diabetes a given frequency of these changes is reached about ten years earlier than among those without the disease. . . ."

INJURIES TO THE PERIPHERAL NERVES *

J. F. MAURER, M. D.
BRAZIL

The study of injuries to the peripheral nerves is one of the most interesting and important subjects in the realm of trauma. It is most timely just now because it seems quite likely that many of us in the not too distant future will be called upon to repair many more such injuries than we now ordinarily encounter.

Injuries may come and go, but none is more dramatic than one which renders an otherwise apparently normal member useless. The etiologic factor may be either direct or indirect force applied to the nerve or nerves. The types of injury may vary from mild contusion to complete division.

It is well to consider briefly the changes that take place after interruption in continuity of a nerve. Immediately following division of a nerve, a process of degeneration and regeneration begins. This histologic process was first described by Waller in 1852. The axis cylinder and myelin in the severed segment completely degenerates; whereas, the same elements in the proximal segment degenerate upward to the first node of Ranvier. At the same time the nuclei associated with the sheath of Schwann start a process of hyperplasia which begins with enlargement of the nucleus and a granular deposit in the cytoplasm. This degeneration begins about the third day and is nearly complete by the twelfth day. The regenerative process is continuous with the degenerative one. First, the nuclei of Schwann's sheath multiply very rapidly and fill the empty lumen of the neurolemmal sheath in the distal end, as well as the sheaths from the sight of severance to the first node of Ranvier. Then, if the intervening gap between the severed ends is not too long, or if it is protected by some form of tube, these cells will send out protoplasmic bands of gelatinous material which fill the intervening gap. Simultaneously, the axon sends out numerous neurofibrillae which grow downward through the mass of protoplasmic bands, and if the gap has been bridged by these bands they follow the bridge and enter the distal nerve segment. Frequently, however, many of the neuraxones fail to enter the distal nerve segment and will produce an oval enlargement at the sight of junction, known as a neuroma. The protoplasmic bands apparently arrange themselves as a reticulum forming the meshwork in which the myelin is deposited, enabling the nerve to complete its process of regeneration.

The diagnosis of nerve injury is often quite evident, but at times it may present somewhat of a problem. If following trauma there is paralysis or some disturbance of sensation, naturally the assumption must be that there has been injury to the nerve which supplies that particular member or area. It becomes our task to prove or disprove this assumption. Frequently, as in the case of fractures or lacerations, the site of the injury to the nerve is apparent. At times, however, it becomes necessary to map out the areas of anesthesia to determine which nerve or nerves have been affected. In the case of motor nerves the exhibition of certain electrical phenomena is helpful. If the muscle responds to the faradic current no further test is necessary. If there is no faradic reaction one should test with the galvanic current for reaction of degeneration. This type of muscular contraction is characterized by its long period; the process of relaxation is much slower than that of normal muscle. It has been stated that the tibialis anticus, however, may respond to the faradic current for some time after division of its nerve.

Signs of paralyses of the sympathetic system are most marked after division of median, ulnar, and sciatic nerves. Interruption of vasoconstrictor fibers leads to vasodilatation in the skin. In the same area there is lack of sweating and the superficial layers of the skin become so thickened that the skin loses its normal elasticity. The trophic ulcer is usually the result of an injury unnoticed because of anesthesia. A point which awaits explanation is the readiness with which these ulcers heal after suture of affected nerves, even before conduction has been established in the peripheral segment of the injured nerve.

Saito has visualized the nerves by injecting 0.5 cc. of thorotrast directly into the nerve. In this manner he has been able to locate the lesion by means of x-ray.

The association of nerve injuries and fractures is quite close, and when one remembers the proximity of certain nerves and bones it is easy to understand why some nerves are more susceptible to injuries. In a report of a series of 253 fractures associated with nerve injury, the bones fractured in order of frequency are as follows: humerus—210; radius and ulna—14; radius—9; clavicle—7; femur—5; tibia and fibula—3; pelvis—2; ulna—1; tibia—1; and fibula—1. In this series, reviewed by Lewis and Miller, it is stated that some fractures were multiple but that there was one nerve injury. The fractures were: simple, 180; compound, 38; and not recorded, 35. The musculospiral was injured 136 times; ulna, 62 times; median, 15 times; brachial plexus, 7 times; external popliteal, 8 times; and others in lesser frequency. Stuck, in a series of twenty-five cases,

* Presented before the Surgical Section of the Indiana State Medical Association at French Lick, September 30, 1942.

found distribution of nerve injury as follows: common peroneal, 32%; radial, 20%; ulnar, 20%; sciatic, 8%; median, 8%; brachial plexus, 8%; and intercostal, 4%. The latter series, however, was reviewed at a much later date, and the cause of injury was in the majority of cases due to automobile accidents.

A study of the different series of cases revealed that the most frequent site of nerve injury in conjunction with fractures of the upper extremity is at and near the elbow. This is easily understood when one recalls the relationship of the three main nerves to the lower end of the humerus. Eighty-eight per cent (Lewis and Miller) of fractures associated with nerve injury are of the humerus. Fifty-three per cent of fractures of the humerus are in the lower third, and twenty-five per cent in the middle third. Of musculospiral injuries thirty-six per cent occur with fractures of the middle third, and thirty-two per cent occur with fractures of the lower third. Ninety per cent of ulnar injuries occur with fractures of the lower third. Seventy-five per cent of median nerve injuries occur with fractures in the lower third. Twenty-four per cent of nerve injuries associated with fractures are primary, forty-two per cent are secondary, and late paralyses make up for the remainder. The primary group includes cases of complete anatomic division and those in which the nerve is caught over displaced fragments or interposed between fragments. The musculospiral nerve is by far the most frequently affected.

In secondary paralysis the musculospiral is also the leader. Evidences may appear during healing or after the fracture has healed.

Late paralysis frequently involves the ulnar nerve, and in one report the onset of paralysis did not become evident until twenty years or more after the injury.

In each case of fracture, examination should be made to ascertain whether or not there has been nerve injury. Many cases will show evidence of injury and it would be impossible to tell whether there has been actual division of the nerve, or merely contusion.

If one suspects nerve injury, what shall be the indications for operation?

1. Total loss of conductivity, sensory and motor, in the territory exclusively supplied by a nerve persisting after an interval of two months during which proper treatment has been carried out. This interval is an arbitrary one; it allows time for first appearance of signs of recovery provided the lesion does not necessitate the lengthy process of degeneration.

2. Palpable neuromas at the site of injury of nerve, the function of which is seriously disturbed.

3. When recovery has begun but has not progressed, or has actually ceased.

4. Persistent, severe, and intractable pain.

The treatment of nerve injuries is naturally determined by the existing condition. If surgical treatment is to be done, it is most important to have perfect exposure and asepsis. The time element is important and, of course, the sooner the pathways of conduction are restored the greater will be recovery of function. However, recovery has been noted when an interval of years between injury and repair occurred.

Probably the most successful type of operation is neurolysis or freeing of the nerve from some tissue or tissues which cause interruption of impulses. Many writers report close to 100 per cent return of function with this type of operation. End-to-end suture is used in those cases in which there is complete division of nerve or when resection of nerve segment is necessary. In some instances it is not possible to suture the nerve ends at once, and in these instances it may be advisable to fix the nerve ends in preparation for suture at a later date. This is sometimes done to permit the nerves to stretch so that suture may be accomplished with more hope of success.

In cases where there is a large nerve defect some means must be utilized whereby a bridging of the gap may be accomplished. Various methods have been used. Nerve grafts have been used and many variations of the procedure reported. In some cases both distal and proximal segments have been implanted into an adjacent nerve trunk. In some a segment of some minor nerve has been grafted between the two ends. Veins have been used as channels in the hope that the axons will follow the desired course. Channels of suture material covered with foil also have been used. In my review of various works an occasional good result was reported from these methods, but most authorities agree that these procedures are not attended with a very high degree of success and suggest the use of tendon transplants and muscle re-education instead where possible and rational.

In nerve suture a few points may well be taken in review. The ends of the nerve to be sutured should be squarely cut, and if there is any fibrosis the nerve ends should be resected beyond the farthest points of fibrosis. At the line of suture the nerve ends should be in bare contact, even under slight tension, without any crowding together or eversion of fasciculi. It is generally agreed that sheath sutures alone are desirable and that a stay suture passed through the whole thickness of the nerve trunk is best avoided. The suture material should be of the finest calibre compatible with the strain to which it is to be subjected. The suture material is debatable. However, most authors advise the use of fine silk, others suggest the finest linen. Catgut has generally been condemned but some claim very fine catgut sutures are even superior to non-absorbable material.

When possible the nerve should be placed in a bed consisting of healthy muscle tissue. In regions where this is not possible a small sheath of fascia inserted under the nerve forms a most efficient

protection from denuded bone, rough callus, or bare tendons.

After suture of nerve or nerves the limb should be placed in such position as to prevent undue tension on the suture line. It is equally important to prevent adhesions between tendons and their sheaths, adhesions in periarticular structures, and maintenance of nutrition in the paralyzed areas. It is important that certain parts of the limb shall not be continuously immobilized. Large joints are not so likely to become stiff during fixation; but small joints, especially those of the wrist and fingers, must be given freedom of movement and they require daily active or passive exercising. Heat is an important aid and is easily available in the hot bath. When trophic ulcers are present radiant heat may also be used. Massage should be regular and methodical. At first galvanic current may be used on each individual muscle. The current should be the weakest which will cause or produce contraction or response. When faradic response returns it may be substituted for galvanic. Sinusoidal current may also be used. The postoperative period is the most important.

Recovery depends to a great extent on the individual's ability to re-educate himself when return of function does occur.

While individual reports vary greatly it may be said generally that recovery of sensory portions of the nerves does not seem to be coextensive with motor recovery.

In the final appraisal of results certain nerves show a greater tendency to recovery than others. And there again is a wide divergence of opinion and statistics, as shown by different authors. Following a review of various works it would appear that recovery after repair is likely to occur in the following nerves or plexuses in the order as follows: (1) Radial. (2) Sciatic. (3) Median. (4) Ulnar. (5) Tibial. (6) Peroneal. (7) Brachial plexus.

SUMMARY

In summary it may be said that the examining physician should always be on the alert for possible nerve injury in connection with fractures and other injuries. Great care should be used in handling fractures in order not to injure an intact nerve. After reduction of fractures vigilance should be maintained for development of delayed evidences of nerve injury and appropriate treatment instituted. If nerve injury is present, the best results are obtained when prompt repair is done unless otherwise contraindicated. Postoperative direction of attention toward affected muscles is of paramount importance.

ABSTRACT: NEED FOR MEDICAL AND HEALTH PERSONNEL STRESSED BY JOURNAL

Pointing out that during the period of the war physicians must be willing to dislocate themselves in order to meet civilian war needs exactly as they must be willing to volunteer for service with the armed forces as those forces require additional enlistments, *The Journal of the American Medical Association* for August 1 says that "If the medical profession can answer these calls as they should, the problem of postwar adjustment, with the retention of all the factors that make American medicine what it is today, is more likely to be solved suitably."

Under the heading "Current Needs for Medical and Health Personnel," *The Journal* editorial says:

"In an effort to determine just how large a medical personnel may be required in health departments and hospitals, G. St. J. Perrot and Harold F. Dorn of the Division of Public Health Methods, National Institute of Health, sent out a questionnaire to all such institutions. About 80 per cent, or 1,036 of the 1,272 health departments to which questionnaires were sent, reported that they now employ 16,921 technically trained full-time paid persons and have existing vacancies for 1,093 persons. Needed to provide services made necessary by wartime activities are an additional 3,908 persons. If the 20 per cent of health departments which did not reply need proportionately as many persons, an estimated total of slightly more than 6,000 employees will be required by health departments. Forty per cent of these are public health nurses and 9 per cent physicians.

"Private and nonfederal governmental hospitals reported that at present nearly 20,000 nonmedical professional and technical persons are needed and that planned expansion will require as many more. Forty-five per cent of these are graduate nurses and 21 per cent student nurses. 'Many hospitals report that the difficulty of obtaining interns, residents and service and maintenance personnel is fully as great as the difficulty of obtaining technically trained persons. This shortage of personnel is partially the result of an increased demand for hospital service arising from the higher income of wage workers and, in certain areas, from a rapid increase in population because of the expansion of war industries. Equally important, however, is the loss of personnel, some of whom have been taken by the armed forces or governmental and military agencies needing trained persons, while others have left because higher wages and shorter hours could be obtained from employment in various war industries.'

"The report concludes that 'the needs for personnel shown in the tables will increase as the armed forces expand, and as more and more persons are required for the expansion of war industries. With the exception of physicians, dentists and nurses, the armed forces are now training an appreciable proportion of their own requirements for technical health personnel. However, men of military age will continue to be taken for military service unless present policies are changed.'

"Probably no other problem of the war is as difficult from the sociologic, economic and other points of view as the problem of personnel. The training of great numbers of persons in excess of peacetime requirements may mean considerable unemployment after the war. Speeded education is likely to be incomplete and likely to result also in the appearance of many unqualified practitioners in all the professional fields when the emergency ends. Nevertheless the needs, as far as concerns the protection of the public health and the provision of medical care for persons in mushroom towns and boom town areas, must be met. The problem is definitely one for the medical and public health professions. The Procurement and Assignment Service for Physicians, Dentists and Veterinarians should be able, with the complete cooperation of the medical profession, to take care of the medical aspects. . . ."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis

Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis ..... Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette ..... Dec. 31, 1942
Herman M. Baker, M.D., Evansville ..... Dec. 31, 1943
L. G. Montgomery, M.D., Muncie ..... Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis ..... Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend ..... Dec. 31, 1944

NOVEMBER, 1942

Editorials

THE FRENCH LICK CONVENTION

"It's all over and it was a honey!" Such was the universal appraisal of the recent convention at French Lick; many of us had gone down there filled with apprehension lest the party be a flop, due to war conditions, but the attendance exceeded the expectations of the most sanguine.

Aside from the first day, when Old Boreas seemed to be lurking around the corner, the weather was delightful, Old Sol came forth, according to schedule every morning, while at night the Man in the Moon and the Lady in the Moon took turns in adding to the pleasures of the occasion. French Lick Springs Hotel never was in better array, everything spick and span, and the "glad hand" was reaching out in every corner thereof. The grounds were, as always, beautiful, although we were a bit early for the autumnal wave of color in the foliage.

Also, Hoosier Medicine was at its best; everyone seemed to sense the fact that we at long last were away from the cares of the world and that for a very few days we could relax to the fullest extent.

We had an unusual number of guests during the meeting; our neighboring state was having their convention in Louisville at the time, and each day a delegation came over to wish us well. Our exhibitors were happy; doctors had plenty of time to browse around the exhibits and to talk with the demonstrators.

The annual dinner was a real success, even though it was informal in character. With a few exceptions, every guest came to the dinner in "mufti," although some of the Brass Hats sitting up there with the "head man" felt that the occasion called for a few "boiled shirts" and dressed accordingly.

On Tuesday the Council met in a luncheon session, transacting such business as had accumulated since the mid-winter meeting. The present editor, E. M. Shanklin, M.D., of Hammond, was elected to serve for another year, and the new members of the Editorial Board are: Ernest Rupel, M.D., of Indianapolis, and Harry W. Garton, M.D., of Fort Wayne. They replace Drs. James F. Balch, of Indianapolis, and E. L. VanBuskirk, of Lafayette.

William S. Keller, Senior Surgeon, U. S. Public Health Service, Regional Medical Officer, Fifth Region, Office of Civilian Defense, was the guest speaker at the Conference of Local Health Officers and Chiefs of the Emergency Medical Service of the Indiana Civilian Defense Program held on Tuesday; Paul Turner, M.D., of Louisville, Kentucky, was the speaker at the luncheon meeting of the Anti-Tuberculosis Committees; Harry S. Gradle, M.D., of Chicago, was the speaker at the breakfast meeting of the Conservation of Vision Committees. Orlen Johnson, M.D., of the Council on Industrial Health, American Medical Association, Chicago, was a guest speaker at the breakfast meeting of the Committees on Industrial Health; also C. D. Selby, M.D., chairman of the Subcommittee on Industrial Health and Medicine of the Health and Medical Committee, War Manpower Commission, Detroit, Michigan; and Colonel J. G. Townsend, M.D., chief of the Division of Industrial Hygiene, United States Public Health Service, Bethesda, Maryland.

Wednesday morning the scientific programs were begun. After the usual welcoming speeches, President Austin presented his official address, which was published in the October issue, followed by guest speakers: Norman H. Plummer, M.D., New York; Harry Edgar Mock, M.D., Associate Professor of Surgery, Northwestern University Medical School, Chicago; Colonel James G. Townsend, M.D., Chief, Division of Industrial Hygiene, National Institute of Health, Bethesda, Maryland. A paper, prepared by R. Arnold Griswold, M.D., Professor of Surgery, University of Louisville School of Medicine, Louisville, Kentucky, who was unable to be present because of his duty in the armed forces, was read. Miss Lillian Adams, Nurse Recruiting Secretary of the American Red Cross, Indianapolis, spoke on the "Military Need of Nurses." At a luncheon meeting of the Procurement and Assignment Service, county chairman Colonel Robinson Hitchcock was the main speaker. Colonel Fred W. Rankin, president of the American Medical Association and Elmer H. Henderson, of Louisville, Fifth Corps Area chairman, and Colonel E. C. Jones, Fifth Service Command, also attended the meeting.

Sections on Medicine, Surgery, Ophthalmology and Otolaryngology, and Anesthesia held their meetings in the afternoon on Wednesday. Complete reports of the proceedings of the general meetings and of the section meetings will be found in this issue. Section officers for 1943 were named as follows:

Section on Medicine: Donald E. Wood, M.D., Indianapolis, chairman; George W. Willison, M.D., Evansville, vice-chairman; and Eugene E. Boggs, M.D., Indianapolis, secretary.

Section on Surgery: William D. Inlow, M.D., Shelbyville, chairman; William H. Howard, M.D., Hammond, vice-chairman; and Lyman T. Rawles, M.D., Fort Wayne, secretary.

Section on Ophthalmology and Otolaryngology: Ora G. Brubaker, M.D., North Manchester, chairman; Claude A. Robison, M.D., Frankfort, vice-chairman; and Bernard D. Ravdin, M.D., Evansville, secretary.

Section on Anesthesia: Officers re-elected, as follows: E. P. Buckley, M.D., Jeffersonville, chairman; Frank W. Ratcliff, M.D., Lafayette, vice-chairman; and J. M. Whitehead, M.D., Indianapolis, secretary.

Guest speakers who participated in the section meetings were as follows: Norman H. Plummer, M.D., New York; Lester R. Dragstedt, M.D., Professor of Surgery, University of Chicago; and Albert C. Furstenberg, M.D., Dean and Professor of Otolaryngology, University of Michigan, Ann Arbor.

Wednesday evening the annual banquet was held, with James E. Paullin, M.D., president-elect of the American Medical Association, Atlanta, Georgia; and Felix Morley, President of Haverford College, Haverford, Pennsylvania, as guest speakers.

Speakers for the second general meeting were: Stephen Badanish, President, Indiana Pharmaceutical Association, Gary; Lester R. Dragstedt, M.D., Professor of Surgery, University of Chicago, The School of Medicine, Chicago; Albert C. Furstenberg, M.D., Dean and Professor of Otolaryngology, University of Michigan Medical School, Ann Arbor; and Arlie R. Barnes, M.D., Professor of Medicine, University of Minnesota Graduate School, Rochester, Minnesota.

The annual breakfast meeting of the House of Delegates was held Thursday morning, with the election of officers for 1943 resulting as follows:

President (elected in 1941): Carl H. McCaskey, M.D., Indianapolis.

President-elect: Jacob T. Oliphant, M.D., Farmersburg.

Treasurer: A. F. Weyerbacher, M.D., Indianapolis.

Delegates to the A.M.A. (two years): Re-elected, H. G. Hamer, M.D., Indianapolis, and George Dillinger, M.D., French Lick. The alternates, J. E. Ferrell, M.D., of Fortville, and A. S. Giordano, M.D., of South Bend, were also re-elected.

As usual, when the time came to start the trek homeward most everybody remarked, "Another year I plan to stay here for the rest of the week!" French Lick still has a warm spot in the hearts of Hoosier Medicine, and we join with the majority in the wish that soon we may again meet at this delightful spot.

NEW PROBLEMS IN MEDICAL ENLISTMENTS

Some time ago it was announced that Indiana had exceeded her quota for enlistment of physicians in the armed services and that for the nonce there would be a slowing down in the enlistment program. As of today, however, the picture has changed. Our Army is increasing in number and the Selective Service Program as now announced means a need for additional medical officers.

We have made a rather extensive study of the matter and our information is that during the next year Indiana will be asked to furnish a rather large number of medical men, the exact figures being taboo on account of instructions regarding publishing the manpower of the Army. However, the additional requirements will be such as to command the attention of certain of our local county society groups. An additional interest in the picture is that most of these enlistments will have to come from our larger population areas; in fact eighty-six of our ninety-two counties have all but exhausted their available supply of physicians. This means that six of our counties, viz., Allen, Lake, Marion, St. Joseph, Vanderburg and Vigo Counties will be called upon for these enlistments, and but few of these can be had from the last-named county.

All this is but a part of the "must" program; we have but one job before us—and a big one—that of winning the war. No longer can we refuse to face the fact that for months past we have been on the losing side and that the tide will turn only after every available war asset is put to its best use.

At the recent French Lick session we too often heard the accusation that we have been too complacent; that we have taken too much for granted; that we are not fully alive to things as they really are. Much of this criticism is merited we verily believe and it now becomes our patent duty to eliminate the causes of that criticism.

No longer can we be content in leaving these problems in the hands of our state and local Procurement and Assignment committees. It now becomes a personal problem, one that you and you and you must tackle—not, what should I do about it, what can I do about it, but, *what will I do about it?*

Resolved into complete simplicity, it means that in the six named counties our problem of civilian care will be greatly increased; we may feel that right now we have about reached the limit, when

as a matter of fact "we ain't seen nothin' yet!"

Some of our larger centers already have been adjusted to the new order of things; programs for civilian and industrial medical care have been planned, some of them are in operation, but these will have to be changed; the cloth will again have to be cut to a proper fitting.

We talk about Industrial Medical Care, Civilian Medical Care and other similar topics; rest assured that the Army and the Procurement and Assignment Service will see that a sufficiently large group of medical men will be left in these communities and, *if properly disposed*, they will be able to take care of any and all emergencies.

We are advised that the state Procurement and Assignment Committee has ready for release some *suggestions* in the matter, and that these suggestions may later become *recommendations*, or even *orders*.

The first is that any physician holding so many industrial appointments that he cannot care for them without one or more assistants might do well to give up some of these appointments for the duration of the National Emergency. This may appear drastic, but our informant states that this will soon be done.

Another problem is found in those cases in which assistants or associates have signed a contract not to enter into private practice for a definite term. It is a well-known fact that such assistants, after a year or two of such an arrangement, do not "work as hard" as they might if on their own. And it is equally well known that if they were in private practice they would be of far greater service to that community.

Our committee-member informant advises that they soon will make the suggestion that *such contracts be abrogated, at least for the duration of the National Emergency.* We know of one instance where a young physician under such a contract has been voluntarily released from the contract and has assumed his share of the medical-care load in his community.

Six months ago we would have been accused of paresis had we written the above statements, but today they are accepted facts although some of the statements have not been formally issued by those in authority. But, we again say that we are in a state of war; that there is but one job before us—that of winning the war. We will have to accept suggestions and orders that we do not like; we will have to work as we never before have worked, *but we mean to win this war!*

Read the Convention Reports
in this issue

INDUSTRIAL HEALTH COMMITTEE

This committee is one of the newer ones in the long list of standing committees of the Indiana State Medical Association, and from year to year it has assumed more and more importance. It is our belief that during the coming year we will have discovered that the Committee on Industrial Health is the most important and the most vital committee of our entire list. Industry, big and little, has come to recognize the importance of the health of their employes, not only insofar as it relates to the various industrial-disease hazards, but to the general well-being of their employes as well.

Some of our larger industries have built up a large medical organization, one of whose functions is to look after the health of their employes. Long ago Henry Ford visualized this problem and at the Ford Hospital, in Detroit, maintained a large organization of medical men whose chief job was to see that Ford employes maintained good health in a high degree.

Since the enaction of laws in many states relating to compensation for occupational diseases, the matter has assumed much greater importance and the medical profession has come to realize that it has an important role to play in the drama. Not only do we have to do our part, but we must be on the alert to see to it that "our rights"—if we have any—are preserved. We want to give all in our power to further this valuable addition to industrial economics, at the same time we want to be certain that we still maintain control over the purely professional phases of the various problems presented.

Dr. Selby, head of the Medical Department of General Motors, paid Indiana—and Tom Hendricks—a pretty compliment when he stated that while at Atlantic City last June he told Tom that what they most wanted, right now, was a plan. And, remarks Doctor Selby, Tom came up with a plan right then and there. That, by the way, is characteristic of Indiana and of Tom Hendricks. Indiana medical folk have an uncanny knack of looking forward—we seem to "sense" things so when those things dawn we seem to have the answer.

At the French Lick meeting the breakfast meeting of the committee was an outstanding feature of the convention; it was largely attended and the greatest of interest was shown in the doings. Dr. Foster, secretary of the Michigan society, explained how his group had taken the suggested Indiana plan and, with some changes to fit the community, had the plan in operation.

So it is that we say this committee has an important job before it; each member of the committee must be willing to sacrifice some time in getting the wheels going 'round. To our notion, the naming of this committee is one of the big jobs of the incoming administration, and second

in importance is the naming of an official secretary to the committee—*and this man must be an organizer!* The work-sheet of the committee will be a big one, and in its planning every conceivable aid should be sought. Industry wants help, and that help will have to be had from one of two sources, either from the state medical groups, or from the United States Public Health Service—we much prefer that the medical profession write their own ticket in this matter!

Now that we know what will have to be done, we trust we may get started, right now. The Indiana State Medical Association has an opportunity to control this work, and we have plenty of medical brains to do the job; we know it is a job that some one will do if we don't do it ourselves, so let's get going!

LIMITATION OF MOTOR SPEEDS

For some months the American public has been aware that soon there would be limitations placed on the operation of automotive vehicles; we of course knew that at some date the Middle West, perhaps the entire nation, would be placed on a gas ration. We also knew that tires were to be rationed and that even tire repairs would come under the jurisdiction of the proper federal authorities.

However, few believed that restrictions as to speed would be made, 'though a common sense view of the picture would have enlightened the most stubborn American. Now we have with us the entire group of restrictions, the latest of the series being that of "mile per hour" in the operation of motor vehicles. First, the *restrictions were suggested;* these suggestions were taken up by the various state governments and *recommendations* were made that such *suggestions* be acted upon at once.

Most American citizens seemed in accord with these and at once there was a slowing down of traffic, but apparently not to the degree wished by those in authority. Now comes what amounts to an *order,* this from a governmental agency with an imposing title. We quote the heading of the order:

TITLE 49—TRANSPORTATION AND RAILROADS
CHAPTER II—OFFICE OF DEFENSE TRANSPORTATION
(General Order O. D. T. 23)
PART 501—CONSERVATION OF MOTOR EQUIPMENT
SUBPART C—LIMITATION OF SPEED OF MOTOR VEHICLES

Then follows the order, together with definitions of what the various parts of the order mean. Well down in the list we find:

"§ 501, 127 *Exemptions.*" Under "b" we read: "Any motor vehicle when driven or operated in an emergency for the protection or preservation of life, health or for public safety: *Provided,* That this paragraph shall not be construed as to authorize any such motor vehicle to be driven or operated at a rate of speed in excess of that which is reasonable under conditions prevailing at such time."

So there you have it, right straight from Washington, which means that henceforth we shall have to operate our cars as directed. The quoted exception specifically refers to physicians, ambulance drivers, et cetera, as we take it. It means that in *rare* instances may such drivers set down the heavy foot on the accelerator, but the exception makes it definitely clear that such occasions are not daily occurrences.

In this connection we quote a statement from a member of the editorial staff, which definitely—and precisely—expresses our personal reaction to the order. The medical profession is composed of human beings; it was once said " 'tis human to err," and being humans, some physicians may err as to the interpretation of this ruling. Broken down into plain language, Director Eastman has asked America to "take it easy" and having asked that it is plain that he means to see that this is done. Seldom is it neccssary for a physician to drive down our streets and highways at break-neck speed—the chap who makes a practice of this arrives at the scene of disaster or emergency completely flustered, while the doctor who drives along at moderate speed has plenty of time to visualize what may be before him when he arrives upon the scene.

While we are on the subject it might be well to mention that even though the medical profession will have "C" cards, or better, moderation on the use of motor fuel is strongly recommended.

Most of us have neighbors and most of these neighbors will have "A" cards, and it is these neighbors who will be the first to complain if they see the neighborhood physician using his car for pleasure driving. Motor car restrictions are a part of the war program and should be observed with the same degree of fairness that we accord other phases of the program. *Let's take it easy!*

BOARD OF HEALTH CHANGES

Dr. John W. Ferree, for the past two years secretary of the Indiana State Board of Health, has been given a leave of absence by the board and has accepted a commission as lieutenant commander in the Navy, reporting at the Marine Barracks, Parris Island, South Carolina, October twenty-sixth. Thurman B. Rice has been named as acting health commissioner during the absence of Dr. Ferree, thus assuring a continuation of the present policies of the board. This appointment

was made by Governor Schricker, on the recommendation of the board.

John Ferree has done exceptionally well in the handling of what had become a big job; he succeeded Verne K. Harvey, who had established the board on a firm foundation and who had resigned to take over the position of medical director of the Interstate Commerce Commission. Surrounded by a capable corps of department heads, Dr. Ferree took up just where Dr. Harvey left off, and today the Indiana State Board of Health is recognized throughout the country as one of the most efficient health organizations.

Dr. Ferree took charge of the office of health commissioner in October, 1940, and it was not long after that time until emergency matters began to occupy his attention; war was in the offing and that meant many additional problems. Little did he know at the time of the large "war plants" soon to be built within our borders, bringing thousands of workers to reside in Indiana; small towns to become large cities, drainage problems to be met, water supplies to be looked after—these, together with all the minor problems that continually face capable health officials, were squarely met by Dr. Ferree and his staff and, we are happy to say, the proper solutions found for most of them.

The venereal disease menace, always a companion of war, required a lot of study, but we believe that the present means of control will have solved that problem ere long. There was a lot of work ahead for John Ferree and his staff—and John always liked work when it was accompanied with tough problems—but he felt that the Indiana State Board of Health would be able to carry on, under the direction of another member of the staff, so he accepted the commission in the Navy.

That he will carry to his new position the same capabilities and the same determinations to lick most any problem presented, we have no doubt, and as he leaves our state, for the time being, he carries with him the best wishes of the members of Hoosier Medicine, together with those of his host of friends and acquaintances.

His successor, Dr. Thurman Rice, certainly needs no introduction. Every Indiana physician knows him and we dare say every P T A head within our borders knows all about him, probably has had him address her group. An experience of a quarter century with the Indiana State Board of Health, in one capacity or another, makes it certain that he will not have to dillydally for some months, trying to find out what there is to the job. Thurman will just start in right where John left off—and that will be that.

He has learned a lot in the last decade or so; he will be able to handle emergencies with a firmness and with a dispatch that will make things hum. We are reminded of a visit he made to a downstate community some years ago, where he addressed a "town meetin'" in which he told the residents just what had to be done regarding an incipient typhoid fever epidemic, when a local spokesman arose and opined that the town did not want a young upstart to come down there and tell them what had to be done. That was a long time ago and we often have wondered just how the Thurman Rice of today, what with several years of added experience in such matters, would have done in such a situation.

We can rest assured that with Rice at its head the Indiana State Board of Health will carry on, that the people of the Hoosier state will find every health safeguard working for them and that as additional war problems arise they will be met efficiently and firmly.

So we say, "Goodbye, John; How-de-do, Thurman!"

Editorial Notes

The quinine situation has become very serious, the War Production Board having advised the pharmacists of the nation to "turn in their supplies of quinine, regardless of age, quantity or nature." The Philadelphia College of Pharmacy and Science has arranged to assay and analyze all such material turned in, that its potency may be determined. It also is suggested by the board that in southern states, where malaria is more prevalent than elsewhere in the country, they retain enough quinine sulphate of hydrochloride to meet current needs. Quinine is needed by many of the divisions of the Army; we of the states must manage without it.

Albert Stump, legal counsel for the State Medical Association, offered a suggestion at the breakfast meeting of the Industrial Health Committee that has much merit. He was speaking of dislocated physicians who might be sent from various parts of Indiana where there is no shortage of medical care to some of the industrial centers. That there should be no intimations from local folk to the effect that "this man did not make good in his local community, so has dropped in on this busy sector; must not be such a good doctor, else he would not be changing locations at his age," Mr. Stump believes that when such dislocations are made—and it now appears some will be made — that such physicians be given some distinctive uniform, at least a badge, that will indicate that they, too, are making a sacrifice of sorts. We do not know just how this might be worked out, but there is much merit to the suggestion and we trust that our local procurement committee will seriously consider the matter.

It was most unfortunate that plans had been set for a scientific session on Thursday morning at the convention. It is evident that someone forgot our previous experiences in this regard when meeting at French Lick. The majority of members have a long drive ahead of them, and this year, with speed restrictions, several hours were to be added to the home-going plans. Checking out of the hotel requires considerable time on the last convention morning, all of which means that but few members are available as an audience for the last session. Some excellent papers had been set down for this session, and we trust that we may be able to have them for later publication in THE JOURNAL.

In 1938 the California Bank, of Los Angeles, instituted what they chose to call "Pay-Your-Doctor-Week," and since that time have made it an annual occasion. The date set for the present observance is November first to seventh. However, this year the bank has gone a step further and suggests that not only doctors' bills be paid during this week, but all other bills as well; they go the limit when they say, "Pay *all* your bills, right now, and henceforth operate on a cash basis!" In a comment recently sent out by the bank they say, "The original purpose of this observance was to turn the publicity spotlight on the fairly wide-spread tendency 'to let the doctor wait' until all other bills had been paid, and to pay tribute to the members of the healing profession who quietly but relentlessly continue the battle against disease, sickness and death, even now when the world seems bent on destroying itself." This program seems to work in that community and it would please Hoosier Medicine if our banks might enter into such a plan right here at home.

Is there a "Fifth Columnist" lurking about your office? If you are a John Average doctor, there is sure to be some of the vermin about your place. We refer to "scrap." A bit of looking around will disclose a lot of things that should be listed as scrap and dealt with accordingly. You have some broken instruments, some that have been laid aside now that newer models have come in. This makes the finest sort of scrap material for our steel industries, since the better quality of surgical instruments are made of the best steel in the country. Look about your closets, dig up the old rubbers—overshoes as we used to call 'em; then add to these the discarded rubber tubing, of which the average physician has quite a bit. You will be surprised how this piles up and, when added to the scrap pile gleaned from your home, will make a healthy addition to the "National Scrap Pile." We found more than a half-bushel of scrap in our own office, while about our home we picked up a wheelbarrow load—and we believe that we are about the average. Let's get war-minded to the degree that we will become scrap hunters.

The nursing situation shows little improvement, and until the steps now being taken to do something about it bear fruit, the shortage of nursing care will continue to be one of the numerous war problems. The plan proposed by the American Red Cross is now in operation in many sections of the country and will afford additional nursing care to a high degree, but other measures must be instituted. The subcommittee on nursing, of the Health and Medical Committee of the Office of Defense Health and Welfare Services, has recommended that all programs for the training of nurses be stepped up and the use of auxiliary nurses be increased.

Clarence G. Munns, pioneer executive secretary of the Kansas Medical Society, has resigned his post to accept a commission as first lieutenant in the Army Air Force. During the past eight years or so, Clarence Munns has done much for Kansas Medicine, as well as for the profession of the country. He had a keen insight into medical problems, knew his way about in matters political and in particular was one of the "stalwarts" at the meetings of secretaries-editors, which have been held in American Medical Association headquarters for many years. We appreciate the loss the physicians of Kansas have sustained in this resignation, yet hasten to offer our congratulations to Clarence Munns for having done the thing he felt he should do, as well as to the Army Air Force. That organization has acquired a "darn fine man!"

Operators of automobiles are learning a lot of things these days, what with tire and gas restrictions, plus the suggestion that soon there will be more limitations as to their use. Time was when the "old bus" was called upon to perform all sorts of services, with little thought of replacements, cost of operation, et cetera. But war-time has brought about many changes; today even those who are eligible for new tires and are to be given a "C" gas-rationing card find themselves interested, no end, in the savings that can be accomplished under the new rulings. We have not driven a car in almost two decades, but have had occasion to take some rather long trips in them and on many occasions of late have noted that one is unduly tired after one of these long trips. Coming back from French Lick the other day we noted several things about the new driving regulations. The car was a new one, one of the larger units and very comfortable. However, the driving speed was reduced to about thirty-five miles. The first change we noted was that one really could see the country, rather than a flash of this and a flash of that; one felt more rested, too. The gas consumption was one-fourth or more less than when the car was driven "in the upper sixties." One of the occupants remarked that soon the driving public would come to the realization that the lower speeds were just the thing, and would forget about the "big hurry to get there."

The Journal of the American Medical Association for October third carries an excellent article on "Health Aspects For Fuel Rationing," which medical men would do well to read. Particularly in families where oil heat is to be used during the coming season, physicians will be asked many questions about necessary temperatures, et cetera. Most folk will not agree with the dictum that houses thus heated must be kept at a temperature not higher than sixty-five degrees, save in cases where there are infants and invalids. This article makes numerous recommendations that will prove of much value.

Maurice Early, "The Day In Indiana" columnist of the *Indianapolis Star*, must have had a preview of our editorial in the current number of THE JOURNAL on "Medical Enlistments," since his comment so closely agrees with what was said in the editorial which was written while at French Lick. He opens his comment with the statement, "Indiana's medical system faces a breakdown unless the war manpower commission is given real power to assign and relocate physicians as well as other workers." He also comments on the fact that a large number of physicians will be called into service during the next year and that practically all these will have to come from the larger cities. We are officially advised that even now a survey is being made by one of our committees, looking forward to this very thing. We are not fearing a "breakdown" of Indiana Medicine, we just want to be ready when the call comes for some dislocations.

The *Indianapolis Star* of October eighth editorially comments on some of the problems now confronting the Indiana medical profession; we print the entire editorial:

MEDICAL PROFESSION'S TASK

The doctors who attended the annual session of the Indiana State Medical Association revealed a lively sense of responsibility on the part of the profession in meeting various war problems. The organization is still conservative in its attitude, but also alert to meet the additional tasks created by the emergency. Chief among its assignments is the necessity of maintaining health standards of war plant workers and the general public.

Physicians in service should be competent to deal with health of the armed forces. On the civilian front are responsibilities involving the welfare of workers in certain industries of a nature which shortens the lives or impairs the health of employes. Industrial hygiene is aimed to minimize industrial hazards, but such research must now turn to war production processes which release harmful by-products. Hoosier doctors will be aided in their efforts by governmental research agencies.

The association members acted wisely in condemning a plan whereby Federal money would be allocated by the State Board of Health for wives and children of service men. The doctors pointed out that this care for the needy lies within the province of the township trustees. Use of government funds involves the danger of centralized control, the establishment of Federal domination and the evils of state medicine. Adequate care should and can be provided without rushing to Washington for financial doles.

In dealing with matters beyond the immediate medical field, the doctors added their influence against the indiscriminate granting of the automobile driver's license. They urged a law imposing a term in the penitentiary for making false statements in applying for license to drive a motor vehicle.

Other matters on the agenda included a refusal to indorse birth control and so-called "planned parenthood," approval of legislation to require immunization of all defense workers and children against typhoid fever and smallpox for the duration of the war, and efforts to safeguard the health of communities lacking adequate medical facilities.

The Rapides (Louisiana) Parish Medical Society has crystallized the "rationing" of medical service into the following advice:

"1. Live reasonably and in moderation of all things.

"2. Study, and correct the causes of accident and illness in your home and place of work.

"3. Study first-aid and the care of minor ailments, in community classes.

"4. Show consideration in the use of your doctor's time, realizing he also is human."

To emphasize the last point are these suggestions:

"1. Visit his office whenever possible instead of calling him to your home.

"2. Do not take patients to his home.

"3. Make office visits early in the regular office hours.

"4. Do not waste time in his office, but make the visit strictly business.

"5. Make telephone calls only when necessary, then be brief.

"6. If you must have him visit your home, place the call at his office during office hours, if possible.

"7. Do not call the doctor at night unless a serious emergency arises—he works all day and must have rest.

"8. Do not expect unnecessary attentions or follow-up calls from him, but inform him of any important change in the condition of the patient.

"9. Consult your doctor only about medical problems—he is not a lawyer, banker or a Dorothy Dix.

"10. Only in real emergencies request 'right away' calls.

"11. Remember your doctor has many patients besides you and cannot give you excessive time."

The suggestions are headed:

"Notice: Doctors Rationed; Population Doubled; One-third Fewer Doctors!"

This is but another common-sense view of a situation that, while not as yet serious, is demanding much attention. We would suggest that county medical society secretaries furnish their members with suggestions along the lines of the above, that same may be displayed in the offices of the members.

Convention Notes

French Lick is an ideal convention spot, a fact attested by numerous members. Don Cameron is especially pleased with the place—says most everybody here at the time is a doctor—no hustle and bustle, everyone takes their time — everything under the one roof—and the table, par excellence.

Floyd Romberger said that the moment he stepped from his car he experienced a sense of ease. "I feel good the moment I land at French Lick," says Rommy.

Karl Ruddell, former president of the Association, dropped in for an informal call on the session of the Executive Committee. Just wanted to see how things were clicking and to tell a few tall tales.

Dr. Selby, in addressing the breakfast meeting of the Industrial Health Committee, said, "Put medicine on a wartime basis." Indiana did just that more than a year ago, which accounts for our being out front in all matters pertaining to the war.



Executive Committee minus E. O. Asher
Standing: T. A. Hendricks, A. F. Weyerbacher, F. T. Romberger, and Albert Stump
Seated: M. A. Austin, Lucille Kribs, E. M. Shanklin, and Cleon A. Nafe

A special effort was made to obtain pictures at the ninety-third annual session showing physicians of Indiana informally enjoying themselves, for this may be the last state medical meeting held at French Lick for some time. Every effort was made to give those who attended an opportunity to forget for a few hours the busy routine of active practice during these pressing times. However, behind all the laughter and singing and fun the underlying tone of the entire meeting reflected the serious purpose of the all-out effort that is being put forth by the Indiana profession, both on the home front and in the armed forces, to win this war.

A French Lick convention sans George Dillinger has always been an inconceivable thing, yet it did happen this year. George, long Army-minded, took upon himself the rank of major, Medical Corps, United States Army, and is now stationed at the Lawson General Hospital, Atlanta.

In passing it may be mentioned that another Indiana physician is stationed at the same point, Major Joseph Skobba, husband of Hope Toman —remember her?

Before leaving French Lick, Dr. Dillinger had completed the convention plans, hence, we found every detail just as it should be. Mrs. Dillinger says that George's decision to enter the Army was so suddenly made that she just doesn't realize that he has gone.

The famous gangster-green sweater, long worn by Tom Hendricks during set-up day at our conventions, again failed to appear on the scene. Instead, he had a new one—said, "Peggy made it," but it lacks the glamour of its predecessor.



Thumbs up!
J. O. Ritchey and H. M. Banks



Double talk with a double president
Donald Wood, James E. Paullin, Robert Moore, and C. J. Clark



An Allen County caucus
M. B. Catlett and L. T. Rawles



Greene County—present and accounted for



Stag Party mess line



A good gang

Some six months ago we congratulated the French Lick Dillingers upon the arrival of a daughter in their home, promising to take the young lady for a stroll in the hotel gardens next time we were down that way. Mrs. Dillinger promptly reminded us of this pledge no sooner than we had registered, and at this moment we are awaiting a favorable turn in the weather, that we may get out the family pram and keep the pledge.

We met a host of friends early on the morning of our arrival. A stroll through the woods and the gardens revealed that the small animals and the bird life for which French Lick is so famous continue to make these grounds their home. As usual, the squirrels have amused us most. One old fellow—we were certain we had met him before—pranced right up, as much as to say, "Hello! You here again?" He gets a bag of peanuts next time we walk in the woods.

Try as we would, we did not discover a single tic about President-elect Paullin, of the American Medical Association. For some years past we have casually observed the "Brass Hats" on the occasion of their visits to Indiana, seeking tics of various sorts—most public speakers do have one or more of these—but Jim Paullin had us stopped. He just did not show a single tic. First prize, of course, goes to Frank Lahey because of the little tricks he plays with the temples of his rubber-tired specs—just about the best tic we ever have seen.



A shot of the big shots

Carl H. McCaskey, James E. Paullin, M. A. Austin, and Felix Morley

Davy Crockett, long y-clept "The Senator from Tippecanoe" use to have a "convention hat," and such a headpiece you never saw before! It was an ancient model and as the years went by, each year bringing fresh comment from THE JOURNAL staff, Davy finally gave in and bought a new hat. For the second year in succession he has appeared in a splinter new model, this year's hat having a model airplane instead of a feather, which leads us to wonder what has become of the feathers that Austin used to adorn his hats for many years.



Left flank of speaker's table

H. L. Miller, Samuel Harrell, E. O. Asher, and Orlen Johnson



"Four-striper" Townsend clarifies a point

Roy D. Smiley, Colonel James G. Townsend, and Cleon A. Nafe



Discussing Civilian Defense

Stephen Badanish, Colonel William S. Keller, and John Spears

George Daniels is slowing up! It was a full half-hour ere he got his "I so move" phrases going at the first session of the House. Maybe George, too, was impressed with the determination of President Austin to get things going and get things done.

Quiet, question-asking, deep-thinking Carl McCaskey, incoming president, gave a foretaste of what may be expected of him in 1943. His terse comment on the various matters to be considered next year gave every indication that he knows what it is all about and has answers for most of the problems.

Carl McCaskey took a postgraduate course in the "Michigan Medical Service Plan," his instructors being Doctor Foster, secretary of the Michigan State Medical Society, and "Bill" Burns, executive secretary of the same organization. We never knew a man who could ask as many questions as McCaskey propounded during the course, but these Michigan boys knew their stuff and the answers.

Walt Kelly, Indianapolis convention addict, barged about the hotel, renewing old acquaintances and doing his dernedest to get a foursome all set for an early morning golf session. Beats all how the old EREMITES spruce up for the event of the year, then return home to hibernate for the winter.



Council Meeting

Standing: H. L. Murdock, A. F. Weyerbacher, E. M. Shanklin, F. T. Romberger, M. A. Austin, A. M. Mitchell, and Cleon A. Nafe

Seated: Samuel Kennedy, Rollen Waterson, Albert Stump, L. D. Carter, H. C. Wadsworth, N. K. Forster, C. J. Clark, E. H. Clauser, I. C. Barclay, Alfred Ellison, J. C. Elliott, and Will Thompson

Walter Carver, one of the old "wheel horses" in Association affairs, was a member of a party driving down from Noble County. Despite his graying hair and a rather recent serious illness, Walter appears to be set for many conventions to come.

Minor Miller, head of the Evansville Venereal Disease Clinic, always has an audience when holding forth on his favorite subject—"Veneral Disease Control." Few Indiana physicians have had such an enormous experience in this work as Dr. Miller, hence, his pronouncements are eagerly awaited.

We were a bit disappointed in the lack of autumn color in the foliage. Due to the heavy rains of the summer, plus the fact that Jack Frost had but recently put in his appearance, Dame Nature still wore her garb of green. However, here and there we noted a few splotches of the gayer hues. But, in any and all seasons French Lick is just that —a bower of beauty— the home of Nature . . . and Pluto.

Petite Katharine Kennedy, much the better half of Sam Kennedy of Shelbyville, breezed into the breakfast room of the hotel bright and early the day before the convention really opened. The Kennedys never miss a state convention, Katharine remarking, "I reckon time from and prior to our convention dates."



Allen County representatives

E. M. Van Buskirk, D. F. Cameron, and M. R. Lohman



Woman's Auxiliary honors National President

Mrs. Ernest O. Nay, Mrs. Frank Haggard, Mrs. George Dillinger, and Mrs. Arnold H. Duemling



Have you heard this one?

A. M. Mitchell, James E. Paullin, Robert Moore, Herman Baker, C. J. Clark, and R. L. Sensenich



Yum, Yum!
L. A. Ensminger, J. R. Newcomb and Ernest Rupel

Walter U. Kennedy, sage of New Castle, made his usual visit to the annual convention. Few Indiana physicians are so intimately acquainted with Hoosier Medicine as Dr. Kennedy, and his sage counsel is ever sought by those who seriously seek advice and information.

Adolfo Giron was in charge of one of the best "hotel bands" we have heard in many a moon. The band played during the luncheon and dinner hours, and also in the spacious lobby during the evening, at which time numerous guests took full advantage of Terpsichorean possibilities. One young lady invited us to essay a dance with her which invitation we accepted, but when we learned that she was a devoteé of the Rhumba, we promptly reneged—no Rhumba for these fast-aging bones!

Again did we take advantage of a little trick acquired long ago from Herman Baker, that of beating the breakfast game. An increasing number of committee breakfast meetings are held during the conventions, these usually consisting of a streamlined breakfast, not at all adapted to one who has long been accustomed to a real "Hoosier Farmer Breakfast." The plan is simple—just walk into the regular dining room and order a *real* breakfast, then attend the committee conferences.

Speaking of breakfasts, we enjoyed a "Toman Breakfast" one morning while at the convention. In the main, this consists of a platter of wheatcakes, well buttered and generously covered with maple syrup, each wheatcake adorned with a fried egg sunny side up—it's good!

Merely for the sake of keeping the record straight, perhaps these few words will clear up the mystery of Colonel Townsend, head of the Industrial Hygiene Division, of the United States Public Health Service, appearing at the state meeting in the naval uniform of a "four-striper," indicating the rank of a navy captain. Holding the rank of captain in the United States Public Health Service, Doctor Townsend has the same rank as a colonel in the Army or a captain in the Navy and has the privilege of wearing the uniform of either a colonel or a sea captain. The last time we saw him, in Washington, he had chickens on his shoulders and wore the uniform of a colonel. He suddenly appeared, however, over the Hoosier horizon in the uniform of a "four-striper," which would give him the title of Captain Townsend. Whether he appears as Colonel Townsend in olive drab or Captain Townsend in navy blue, he certainly made a commando raid on French Lick and went away with the affection and admiration of us midlanders.

The hour from five to six in the morning, a time when few French Lick guests are sufficiently aroused to appreciate the fact, is the most delightful hour in the hills of southern Indiana. It is then we have no static from down the hall or from the floor above or below—late-at-night celebrants have had enough of it and have retired. As light begins to break in from the East, the birds and small animal life emerge from their nocturnal hibernation, there gradually arises, seemingly from nowhere, the chorus of the birds and the playtime squeaks of the small animals so commonly found at French Lick. One hears the raucous call of the crow, 'way back in the woods and fields, the catbird sends forth his matinal call, then the chickadee, closely followed by the little wren who adds his chirp to the ensemble; and away off we hear the call of the Kentucky cardinal announcing that another day has begun. The squirrels and the chipmunks arise, looking for their morning meal of mast, or perhaps for an early riser to appear with a bag of peanuts. Quiet prevails throughout the foothills and all is at peace—no thought of the war raging throughout the world. It is a time for sober reflection, retrospection and introspection—such are the early morning hours at French Lick.



Of course, this is off the record, but . . .



Jake's smile makes it unanimous



Time Out

Ira Perry, council member from the Eleventh District, was a bit late in registering at the Council luncheon. Ira says that he kept faith with Governor Schricker and that a pace of thirty-five m.p.h. uses a lot of time in getting to French Lick from away up North Manchester-way.

Frank Lake, long-time hotel man about Indiana and Illinois, and formerly connected with the French Lick Springs Hotel, is again on the job, this time serving as assistant to the president, Thomas Taggart. We always have liked to have Frank about the hotels we visit, a "natural" as a hotel man, one of these chaps who make you feel you really belong.

The Army has made several surveys of the French Lick Springs Hotel, probably with the thought of taking it over. Among the suggested uses was a training center for the WAAC's. This led us to suggest to Tom Hendricks that we would like to be considered as a commanding officer of the outfit; we had age, dignity, experience, et cetera. Tom at once advised that dozens of such applications preceded ours!

Mrs. Louis Wisch came down with her husband by train, and thereby hinges a tale of her most embarrassing moment. Seems that sometime during the night she had occasion to use a light and reached up to pull the switch. Getting hold of something or other, she gave a lusty pull and was thoroughly awakened by a groan of protest from the occupant of the upper berth—she had gotten hold of a man's toe! Her car was parked at the hotel entrance at 6:00 A. M., and the moment it stopped she beat a hasty retreat to the hotel—said she did not want to face that man!

Right on the jump, Maynard Austin let the boys know who was going to run things in the House of Delegates and elsewhere. He announced that committee chairmen were entitled to five minutes for a supplementary report, then said, "I hope nobody takes advantage of this!" That last statement served as a red light to most chairmen, although the irrepressible Cleon Nafe did get up to read his "five cardinal principles." We were sitting alongside Davy Crockett, who remarked, sotto voce, "What will I do with all the stuff I brought in here?" We suggested he scrap it—and he did.

Jack Jones, pinch-hitting chairman of the Industrial Health Committee had a supplementary report he thought should be made a matter of record, but he, too, accepted the president's dictum and simply handed the report to Miss Kribs.

Ross Sensenich, he of the huge brief case—everyone wonders what he carries in it—must have heard in advance that Austin was to be quite autocratic about things and failed to appear at the meeting.

Secretary Tom took full advantage of the opportunity to get away from headquarters duties and his commuting between Indianapolis and Washington. He arrived Sunday evening and the following morning we took him for a brisk walk, then to the dining room. He handed the menu back to the waiter with the remark, "Just bring me the works!" The waiter did—and so did Tom—ate the works.

A prominent Indianapolis specialist, in fact the head of the Department of Oto-Laryngology of the University Medical School, was nonplussed for a time over what appeared to be an actinomycosis of the right lower jaw of Jim Niblick, of East Chicago. A bit later he was relieved when he discovered this "tumor" to be nothing more than about one-half the contents of a package which bears a United States 1¾ ounce stamp.

A former convention attendant, Dr. W. T. Lawson of Danville, was missed at this meeting and his absence occasioned much comment from the "regulars." Dr. Lawson is the oldest county medical society secretary, having served as secretary of the Hendricks County Medical Society continuously since 1879 with the exception of three years when he served as president of the society. We later learned that he had planned to be there and had arranged the trip to French Lick, but that unforeseen obstacles developed at the last moment with reference to transportation. Doctor Lawson said, "That meeting is always an anniversary for me as the State Society and I were born the same year—1849." Dr. Lawson never misses.

Why do we like to come to the French Lick Springs Hotel? There are many answers, chief of which is that it is a beautiful, restful spot—and it is homey! Resort hotels, in the main, have a lot of dignity—one has to stick his chest out if he crosses the lobby; not so at the French Lick Springs Hotel! Guests here are just "folks"; they come here for relaxation, come here to get away from it all—and the big job of every Taggart employe is to see that each guest gets just that.

The front office is glad to see you; the hotel manager and Tom Taggart's personal representative do not hide themselves in some inner office but mess around with the guests, that they may see what is going on. They all are glad to see you—want to know if you are having a good time. We talked to about all of them, even spending some time in the pump house where the water supply is distributed "all over creation," as the man in charge expressed it. The water for the larger golf course is pumped from there.

French Lick Springs Hotel is an ideal spot, and it is our hope that after the National Emergency we may have occasion to meet here again and again.

President's Page

OBLIGATORY

A criticism recently received states that I have neglected in all my pages the fact that we are at war, and that some suitable contribution to our effort should have come from my typewriter. I would respectfully refer my correspondent to page thirty-seven of the January JOURNAL in which, opposite the FIRST PRESIDENT'S PAGE, I have epitomized in twenty-four lines all that has been, could be, or shall be written about physicians and our obligations, our gripes and our slackers. In fact, anything more that I would write on the subject would have to he no less than a second Lincoln's Gettysburg Address, in its brevity and comprehensiveness. With four sons under forty, two in service and two in essential war industries, I certainly am aware of no complacency in facing the present or the future.

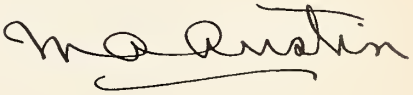
I have conscientiously read many war articles in other state journals, seeking some original thought or suggestions, but unfortunately what I found in their pages were mostly pot metal platitudes rather than inspired messages whose words carried a real expression of the author's personality. If, as one of my friends has said, "You can tell the truth and get by with it," then I should do what I can best do, and so my pages have probably been different.

I wonder how many doctors have read Fishbein's article on THE CULTURAL EDUCATION OF A PHYSICIAN, published in the August 15 issue of the *Journal of the American Medical Association*. In my opinion this will be remembered and referred to oftener than any other of his voluminous writings. My contacts with some of the GREAT MEN IN MEDICINE of the past generation impressed me more as to their cultural attainments than their world-wide fame in their profession. A man's job is to make himself as proficient as his environment will permit, and it is his privilege, if he chooses, to cultivate the humanities.

No man should let himself neglect either himself or his family in his over-enthusiasm with his work. A professional man who can not make a good living in eleven months will not make a better one in twelve. One can always find time to read a good book, to hear good music, to see a good show, to enjoy various forms of artistry, to travel and to find a thrill in nature's wonderlands if they desire to do so. (The latter is postponed for the duration.) Those who don't are merely a cog in a machine that is replaced in an hour and forgotten in a month.

A highly-prized letter came to me from the President of an adjoining state society, in which he states that too many of us plan to take time to enjoy these things, but seldom do so. And this reminds me of a statement in the autobiography of Havelock Ellis. He says, "The art of living is the art of loving, but unfortunately by the time a man has lived long enough to master the subject he is too old to profit by his knowledge." Dr. Osler in his "EQUANIMITAS" AND OTHER ADDRESSES emphasizes the greatness of the opportunities of physicians to be humanitarians. I am not aspiring to be either a preacher or a teacher, and I certainly am no savant—just a small town doctor who envies only those who have not wasted greater opportunities. I have been blessed with far more than I could ever have hoped for. I am deeply appreciative for having a few good friends and probably fewer enemies. Living today and permitting tomorrow to care for itself has lengthened my days and permits me to sleep in peace at night. But we would do well not to ignore our dependence on some Divine Plan and acknowledge our spiritual obligations.

Give yourself time to read such a book as that of the Rev. Paul Scherer, entitled "THE PLACE WHERE THOU STANDEST." The *New York Times* says of it, "Dr. Scherer does not preach or orate, he just talks to his people as though he had a little group by his fireside. Along with this goes a certain colloquialism of speech which seems at first sight undignified, but is consistent with the noblest eloquence and by some strange art of expression only serves to heighten the effect of certain passages. Then there is at other times a restrained and almost savage irony which gives an edge to his discourses and cuts to the very quick." GET IT AND READ IT!



PHYSICAL EXAMINATION BY LOCAL SELECTIVE SERVICE EXAMINERS

MAJOR GLEN WARD LEE

State Medical Officer of Indiana Selective Service System

INDIANAPOLIS

The Director of Selective Service publishes, from time to time, a *List of Defects,* Form 220, setting forth defects not remediable which manifestly disqualify a registrant for military service. The local examiner may disqualify a registrant for any military service when he finds one of the conditions listed in Form 220. All other cases must be sent on to the Army Examining Board.

The physical examination should consist of observing the registrant in the nude for any obvious physical defects and taking a brief medical history to determine whether there is any clinical condition, such as severe asthma or hay fever, bedwetting, or previous history of syphilis which might not be discovered in a routine physical examination, and which, therefore, should be verified by requesting a letter, confirming the history, from the registrant's private physician. Such questions may also be used to determine the mental status of the registrant. A blood specimen for serological examination is required on each registrant.

Regulations require two positive serological tests before a diagnosis of syphilis from the laboratory tests may be made. Repeated doubtful serologies will be interpreted as negative, unless there is an established history of previous infection. Examiners are encouraged to request local boards to seek further information bearing on personal, social, and health history of registrants where such is deemed advisable. The examining physician may report upon a registrant as having a condition listed in the *List of Defects,* Form 220, when he has professional knowledge of such condition, and he may also report to the local board his recommendation of physical classification after consideration of affidavit from a reputable physician who has professional knowledge of the case.

The local examiner is required to answer the following question on the physical report: "Do you find that the above named registrant has any of the defects set forth in the *List of Defects,* Form 220?" If his answer is "Yes," he shall briefly describe the defects. If he entertains a doubt as to the presence of a listed defect, the examiner is required to answer "No.," or if he does not detect any listed defect, he will answer "No"; and no further statement is necessary, except that in the case of a suspected defect a notation to this effect should be entered so that it will receive further investigation by the Army examining Board.

All physicians are encouraged to supply their patients, who are registrants under Selective Service, with a statement certifying a defect which might be disqualifying, and this statement should be turned over to the registrant's local board who will incorporate it with the registrant's physical examination report.

It is obvious, today, that local board examiners would not have the time to make a complete examination such as was made by the local examiner during peacetime. Therefore, the examination has been streamlined to only a cursory inspection which will still eliminate those registrants obviously disqualified for any military service. Under the lowered physical standards which are in force today, Army Examining Boards are accepting approximately 70 per cent of the men sent to them.

Examinations by groups of physicians are encouraged wherever possible, as this tends to further conserve the time of physicians serving with the Selective Service System.

Regulations still require that local examiners make a complete examination and determination of physical acceptability of conscientious objectors, as these men are not sent to Army Examining Boards, and there are no examining boards for the conscientious objector camps.

Medical Advisory Boards are used to review those cases where the local board and their examiner believe that an erroneous diagnosis and rejection has been made by the Army Examining Board, and if a review indicates that the Army's previous diagnosis was in error, the local board again sends the registrant to an Army Examining Board for reconsideration.



Own a share in America.
If your flag falls, you lose your freedom.
You can preserve that freedom by buying
United States Defense Bonds and Stamps.

GLEANINGS OF THE PROCUREMENT AND ASSIGNMENT COMMITTEE MEETING

Talks in the Military Medical Field by national leaders and by representatives of the Fifth Service Command were the features of a luncheon meeting of the State and County Procurement and Assignment Committees held in the Bamboo Room of the French Lick Springs Hotel at noon, Wednesday, September 30, during the ninety-third annual session of the Indiana State Medical Association.

The attendance at this meeting taxed the capacity of the room. At the speaker's table, presided over by Dr. Charles Bird, State Procurement and Assignment Chairman, were Colonel E. C. Jones, Surgeon of the Fifth Service Command; Colonel Fred Rankin; Colonel J. G. Townsend, Division of Industrial Hygiene, U. S. P. H. Service; Dr. Henderson of Louisville, Kentucky, chairman of the Fifth Service Command Procurement and Assignment Committee; Dr. Larue Carter; members of the Indiana State Procurement and Assignment Committee; and Colonel Robinson Hitchcock and Dr. James E. Paullin, the luncheon speakers. Dr. Paullin's paper was highly informative and is published in its entirety. The significant points in Colonel Hitchcock's paper have been abstracted and are also published herewith.

Dr. Paullin's paper points out the medical coverage necessary in defense industrial areas. This must be the next phase of the work of the Procurement and Assignment Service. While allocation of medical manpower may eventually be necessary, it is hoped that the natural laws of supply and demand, aided by information with regard to physicians available for such industrial area assignment supplied to the industries by Procurement and Assignment, may, to a large degree, take care of the situation and obviate the necessity of an enforced program to provide adequate medical coverage to the entire civilian population.

Colonel Hitchcock's paper points to a very important program which must be started now and worked at with ever-increasing effort, viz., the planning for re-absorption of medical officers from their military assignments back into the civilian practice of medicine. In the question period of the program, the matter of deferment for pre-medical students under Selective Service, so that an adequate supply of men for the medical schools may be maintained, was discussed. Selective Service regulations now provide for the deferment of pre-medical students upon presentation of evidence that they have satisfactorily completed two academic years of a pre-medical course and have satisfactory grades to indicate that with reasonable expectancy each individual case may secure admission to the medical school. We are certain that with the lowering of the military-age group to include the 18- and 19-year olds, further provisions will be made for the necessary deferment of pre-medical students as individuals, so that an adequate supply of pre-medical students may be maintained and encouraged to grow.

ADDRESS BY JAMES E. PAULLIN, M.D.

President-elect of the American Medical Association

It is a great privilege to speak to you for a few minutes, perhaps to answer a few questions that may have arisen in your minds in regard to the office of the Procurement and Assignment Agency. This agency was created, as you know, by the President of the United States for the purpose of supplementing the ordinary medical needs of the armed forces through non-governmental agencies, for the protection of the health and for the medical care of the civilian population. This agency is the most comprehensive organization which was ever created by any institution. The agency has functioned through its various corps committees and through its state committees, and it has dealt with tremendous problems. We were initiated into the problems hurriedly, and perhaps not as effectively as we might have been if we had had more knowledge of the various problems which have confronted us since its organization on October 30, 1941. Due to the wholehearted coöperation of the members of the profession in this country, of which the State of Indiana is a brilliant example, we can say that this agency at the present time is functioning through a very satisfactory working program for the Army, for the Navy, and for various other needs. This has been made possible through the wholehearted coöperation of General Hershey, of the Selective Service, and at this point I would like to pay tribute to the foresight of General Hershey in viewing in a broad manner the problems that confront the medical profession, and for his help in solving many of them. General Hershey and his entire staff have been most coöperative, and without their help we would not have been able to advance as far as we have. I would also state that the Surgeon General of the Army has been most coöperative—a little impatient at times, because you know surgeons always want action; they want things done right away, and in the beginning we were not able to function as rapidly as we should. But we now are quite satisfied, and with the enlistment going along as it is at the present time, we will, by the end of this year, have supplied the Army with the needed personnel. That does not mean, by any means, that at the end of the year we can sit down and say we have done a good job, for January first will come, and with the rapid enlistment of men in the armed forces

we must be able to supply additional personnel for this increased army. The medical profession can and will do that, and will continue to do so as long as we are able to function.

There are many problems connected with the Procurement and Assignment Agency that I do not have time to discuss, but there is one particular problem to which I wish to direct your attention at this time—and that is the fact that the Procurement and Assignment Agency, upon request of Mr. McNutt, our director and chief of the War Manpower Board, has asked that we pay particular attention to some of the problems arising in industry, and you may be interested to know that the Procurement and Assignment Agency have formed, through the assistance of Mr. McNutt and with the endorsement of the trustees of the American Medical Association, an eight-point program which will help to solve some of the problems, not only concerning industry itself but in many communities, that have arisen around the various industrial plants. The medical care of the families of industrial workers is a very serious situation and is at this moment a problem which demands the mature and consolidated consideration of all organized medicine. This program submitted by the Procurement and Assignment Agency, and which was lately approved by the War Manpower Board, is most comprehensive.

We hope to settle these problems on the state level. It is the responsibility of the state and local medical societies to help provide medical care for these people. In the event medical care is not available from the local and state medical societies, it is hoped that those physicians who have filled out blanks and returned them to the Procurement and Assignment Agency, those who are willing to be dislocated from their present surroundings, will go into these communities, after consultation with the Procurement and Assignment Agency of the state, and establish a type of medical service which will provide these industrial workers with the medical care that they need and have a right to expect. We realize fully that this program cannot always be financed at the state level. In other words, state and local communities are not able to finance it. That vast hospital facilities will be needed, is, I think, unquestionable. Whether industry will be able to provide it, we do not know; but the chances are that it will not. But through the federal agency of the Public Health Service, and other federal agencies, it is hoped to provide hospital facilities for great industrial communities, and that through the allocation committees of the Procurement and Assignment Agency those individuals who are rejected from military work in the Army and Navy will consent to be dislocated from their present situations. We will thus be able, with the help of the Public Health Service, to furnish medical care to this group of very deserving people. We realize fully that unless the health of the industrial workers is maintained at the one hundred per cent level, or as near that as possible, industry itself will not function in an all-out war effort. We realize that a number of problems exist in relation to this particular program. The same program that will fit in your community here will not fit in Tuscaloosa, Alabama, or in New Market, Virginia; but through the coöperative effort of the various people concerned in carrying out this program, we feel that a great advance can be made.

There are many other things that might be said in regard to the Procurement and Assignment Service, but the point is this: speaking of industry only, remember all the other needs that must be taken care of and will be taken care of by our committees on allocation.

If there are any questions that might arise in your minds, I shall be glad to answer them if I can. I thank you for the opportunity of appearing here, and I congratulate you, Doctor Bird, and every member of the Procurement and Assignment Agency for the most valuable contribution you have made, not only in the state of Indiana, but in setting an example to many of your sister states in helping to win this war.

ADDRESS BY COLONEL ROBINSON HITCHCOCK

State Director, Selective Service System

Two years ago I attended the meeting of the Indiana State Medical Association, here at French Lick, and at that time we did not have any definite idea of what was coming. The only thing we had was a plan that had been adopted by your own association through your mobilization committee. I feel a little embarrassed to sit here and hear all the nice things that have been said to me about the medical program of Selective Service, for that credit in the state of Indiana is due to the members of your organization, and we never will forget it. The Indiana State Medical Association foresaw the emergency and made preparations. We want the credit to lie where it belongs. We have learned a lot from your group, and we have received far more from you than you could ever have learned from us.

I do want to pay a particular compliment to Doctor Bird for his enthusiastic and conscientious work; also to Major Lee, a young doctor of the state of Indiana who firmly believes that a straight line is the shortest distance between two points. He approaches things with common sense reasoning, and much of the progress we have made in Indiana has been because we consulted Major Lee. And Tom Hendricks, genial Tom, who is now commuting regularly between Indianapolis and Washington, has certainly been a great source of help and information to us.

The Governor has at all times been exceedingly

coöperative. Your governor, as the head of Selective Service, wants me to extend to you his thanks for the splendid coöperation that the state of Indiana has received from your organization. I want to add my thanks to his.

Another thing for which we wish to thank the people of Indiana is the manner in which every man, woman and child in the state are, as quickly as possible, taking their places where they can make the greatest contribution to our war effort, thus making our entire manpower available. The sooner we do that, the better off we will be—the more war-conscious we will become, and will, in the end, thus be able to make the largest contribution.

Of course, someone else has the larger responsibility of determining what our goal is going to be. Somebody has to decide upon the number of ships, the number of tanks, the number of planes, and what they are going to do with each—how many men are needed for the Army, the Navy, the Marines, the Air Corps and the other services for defense and offense; somebody has to make the decision as to how much field artillery, what caliber of guns, how much ammunition we need, and where and at what time it shall be used. You can see the enormous problem of coördinating all this manpower, equipment and ammunition, so that when we do start we will have a big force in the front line, more in a second or main line, and an even larger force in reserve. I am sure your early work here is typical and that you will have plenty in the front line, enough in the second line, and an adequate supply in reserve, so that whatever breaks out in any of several different places, you will have a reserve from which to draw to meet the emergencies as they arise.

I would like to mention what we have done in the way of manpower through Selective Service in Indiana. We have registered over one million men in the state. Even today we have passed the number of men inducted during the last war. It is up to us now to go ahead. Whether we are to double or triple our effort, nobody here knows, but our problem now is to balance the manpower, to balance the men in industry, in the professions, in agriculture, and in the armed forces. It we can once strike this balance, then we are ready to go ahead as fast as we can. That is our problem; these are the things that affect us, and, of course, in turn affect you.

You have gone into your procurement and assignment program with zest and intelligence. Everyone seemed to realize in the beginning that the only way to get the answer to what we needed was to start right now to get it done. You have gone through the first stage of procuring from your own group the required number of men from the state of Indiana for the armed forces. *You* did that expeditiously and without confusion. I do not think that there was any disruption of the communities by the program in Indiana through procurement and assignment work. We are highly gratified because of this.

Many of these members who have gone into the armed forces were examiners in our local boards. You are now going into the second stage of procurement and assignment work, that of the reallocation of physicians, and that is where you as medical men can make a still greater contribution. We want you to understand that we feel that public opinion of Selective Service will still be molded relative to the adaptability of our whole manpower, that the public will watch to see that each registrant remains in a position where he can be properly advised and physically examined prior to the time he is taken into the military forces. For that reason we want the medical profession of Indiana to remain with us in the task which they have so nobly performed in the past as examiners, even though that examination is now only a cursory one. It is daily more difficult to replace doctors who are leaving; it may be still more difficult as examiners are moved from their original locations. We want you to stay on with us until we can adopt, if necessary, a modified plan that will be satisfactory to the public.

You are now going through the second stage. The third stage is that of taking care of the civilian population while the doctors in the military forces are taking care of the men in service. It is difficult to realize today that before long we are going to have more and more casualties returning, and somebody will be required to take care of the medical needs of these casualties when they do return. We want a program whereby the civilian population will be given adequate medical care, so their health and morale may remain high, because that morale flows on to the fighters in the field, and, of course, it is up to us to keep their morale as high as we can because that makes for the best soldiers.

I think that we are going to have a fourth stage that is worth much thought and planning. After this war is over, there will have to be a good deal of adjustment made. I think as much thought should be given to that as to any other plans for the future. Many of your own members will return from the ranks as discharged officers; they will try to get themselves re-established, and any success you have now and have had is because somebody was farsighted enough to make plans for members of the medical profession. You see today the fruits of these older plans. These gentlemen from outside your state pay you compliments on your results, and those results are because you started to plan a long time ago. Let us not quit now, but plan for the next stage, and the next one. The tempo of the times is increasing tremendously, and we need all the provisions for the health of the soldier that we can get; we need care for the folk back home more than ever before, so that the men in the fighting forces will feel that whatever they do makes little difference so long as those they have left behind are adequately cared for.

The medical men are exceedingly fortunate in

that members of your profession enter the military service as officers. Some of the other professions do not have that privilege. But we have learned to depend entirely upon you in the successful prosecution of your affairs in this emergency, and to show the way whereby everybody can go about their work as you members of the medical profession in Indiana have gone about yours. I think we can depend upon our soldiers to furnish courage, upon the men in industry to furnish skill, and I think we can likewise depend upon ourselves to match their courage and their skill with our skill in keeping up the morale in a large civilian reserve force that can be called upon at all times whether we are successful or defeated in combat. If we suffer defeat it will only be in one combat, not the big effort.

Doctors are called upon by the public generally for all kinds of advice in regard to many essentials outside the medical field. Let us retain these people's confidence and trust, for that confidence and trust constitutes your part in building up the public morale, which is a vital part of our whole war program.

MILITARY NEED FOR NURSES*

LILLIAN ADAMS**
INDIANAPOLIS

Nursing has two prime functions in our nation's victory effort:

1. To supply nursing service to (a) the armed forces, and (b) to civilians.
2. To prepare enough qualified nurses and nursing auxiliaries to supply the needed services.

To carry out these functions, "business" (nursing) cannot "go on as usual." The needs of the military take priority over civilian needs. The adjustments can be made better on the home front than in the armed forces.

The Red Cross Nursing Service is the official recruiting agency for the Army and Navy nursing personnel. It is also the authority for the statement that there is a definite lag in volunteer nurse enlistments. There appears to be several reasons. Relatively speaking, there is a serious shortage of nurses. There are 300,000 registered nurses in the United States. However, large numbers of these are *inactive*, having retired because of marriage or for other personal reasons. Others cannot pass the physical requirements of the Army and Navy. Thus it happens that hospitals, public-health agencies, and private-duty registries are staffed by just that type of young, healthy and well-trained nurse, eligible for military duty.

Steps are being taken to smooth out this difficulty, such as institution of "Refresher Courses" for nurses now inactive, the expansion of student body capacities, use of subsidiary workers, and group nursing plans by private duty nurses.

There are many nurses who do not appreciate the *seriousness* of the total war situation for which their talents and training are badly needed.

Some nurses do not want to give up salaries of civilian life for the ninety dollars per month they receive in the military. If nurses allow personal gain to prevent them from meeting their moral obligation of serving whenever and wherever they are needed, then nursing no longer deserves the honor of being called a profession.

Parents of young nurses are objecting to their enlisting. They say, "My son has gone, I won't consent to my daughter's leaving." How can they choose between their sons and their daughters?

If you are an employer of a nurse or of nurses eligible for military service, you can find a substitute among the ranks of those ineligible.

The Army and Navy must have three thousand nurses each month for the next twelve months. Indiana must furnish eighty each month. In order to give adequate nursing care, there should be six nurses to every one thousand men in the *ARMY* and three nurses to every one thousand men in the *NAVY*. We now have only 2½ per one thousand. Indiana has 2,238 nurses who by reason of age and marital status are eligible for the service, but who have *not* responded.

WHO SHOULD SERVE?

The national council on war nursing has said that these nurses should serve with the armed forces:

If they are single, under forty and are

(1) Doing private duty;
(2) On a hospital's general staff;
(3) A head nurse, not essential for teaching or supervision;
(4) A public health nurse, not essential for maintaining *minimum* civilian health service in any community;
(5) Nurses in non-nursing positions; or
(6) An office nurse;

they should serve with the armed forces.

Indiana has a record for meeting quotas—Nurses must not fail! Will you give us the same loyal coöperation in this Recruitment Program that we have always received from the medical profession? Will you help us to furnish a nurse for a soldier or sailor who needs one? They, too, need nurses.

---

* Presented before the first General Meeting of the Indiana State Medical Association at French Lick on September 30, 1942.

** Nurse Recruiting Secretary, American Red Cross.

HIGHLIGHTS OF THE MEETING OF THE COMMITTEE ON INDUSTRIAL HEALTH

A resolution suggesting that state Procurement and Assignment Committees be given authority to dislocate physicians not eligible for military service, and to assign them to war industries and to war boom areas, highlighted the meeting of the Committee on Industrial Health, which occurred during the French Lick session on Wednesday morning, September thirtieth. The resolution also called for coöperation of the various interested committees of the association together with the Bureau of Industrial Hygiene of the Board of Health, the Indiana University School of Medicine, and the industries to be affected, to the end that a plan for postgraduate education in Industrial Health be provided to meet the growing demands of war industry.

Dr. Orlen J. Johnson, of the Council on Industrial Health of the American Medical Association, called upon the committee to furnish the pattern for the nation for the procurement, training, and placement of physicians to serve in essential industries. He suggested that lists of physicians who have designated a preference for industrial appointments on their Procurement and Assignment questionnaires should be furnished by the Procurement and Assignment Service. He stated that these physicians can be given a two- to four-week training in industrial medicine, and that the Committee on Industrial Health of the Indiana State Medical Association might well seek the coöperation of the Bureau of Industrial Hygiene of the State Board of Health and the Indiana University School of Medicine.

Dr. C. D. Selby, of Detroit, chairman of the Industrial Health and Medicine Committee of the Procurement and Assignment Service, discussed current wartime problems of industrial medicine and emphasized the fact that lost time by industrial workers must be translated into losses in planes, tanks and guns. He reminded the committee that non-occupational illness is responsible for most of this loss in production, and that all physicians—not just those engaged in industry—must be trained to reduce these losses by preventive medicine, and by making every effort to get industrial workers back into their plants with as little delay as possible. Dr. Selby said that most physicians do not understand the problems of industrial medicine, and that when it becomes necessary to draw upon older physicians and those who have been rejected for military service, training programs must be provided.

Colonel J. G. Townsend, chief of the Division of Industrial Hygiene, United States Public Health Service, described several plans already set up for postgraduate education, but agreed with Dr. Johnson that the best plans would probably include intensive courses provided by the medical schools with the coöperation of state board of health bureaus of industrial hygiene, state medical associations, and the war industries.

Colonel Townsend told the committee that the problems of medical service for essential industries and for boom areas created by war industries can be solved by organized medicine, but, if the job is not done, "We will do it."

Asked to describe the "Michigan Plan," Dr. Selby stated that physicians who have indicated industrial medicine as their choice on their questionnaires are divided into two groups, (1) qualified men, and (2) those who can be trained. The qualified men are placed in industries having a need for them, and the balance are given a training course which includes a week of didactic work, a week in the field with the State Board of Health Bureau of Industrial Hygiene, and a week or more of work in a designated industry.

The discussion of these problems resulted in the adoption by the committee of the following resolution:

"WHEREAS, The paramount obligation of the medical profession is to distribute, make available, and render its services in the manner best calculated to win the war; and

"WHEREAS, The attainment and preservation of the highest industrial efficiency requires specialized medical services in the field of industrial health; and

"WHEREAS, These unusual demands upon the medical profession, not a part of the armed forces, will require in some instances that physicians be dislocated for the duration of the emergency to give their time and professional skill, for reasonable compensation, to satisfy such demands, now, therefore be it

"*Resolved*, That in the judgment of this association authority should be given by the Government, to Procurement and Assignment committees of state medical associations, to assign physicians not eligible for military service, in the manner that, in the opinion of the committee, will best provide adequate medical service for the entire civilian population, and be it further

"*Resolved*, That in the judgment of this association, the Government should provide some suitable insignia which may be worn by physicians dislocated to perform such service, either voluntarily or by assignment, in special recognition of their sacrifice and of the service rendered by them in thus helping to win the war, and be it further

"*Resolved*, That the Committee on Industrial Health of the Indiana State Medical Association, in cooperation with the Committee on Medical Education and Hospitals, the Committee on Publicity, the Bureau of Industrial Hygiene of the Indiana Department of Health, the Indiana University School of Medicine, industries to be affected, and any other interested agencies, be authorized to

draw up and carry out plans for postgraduate education in Industrial Health for physicians."

However, it was thought best not to present the resolution to the House of Delegates at this time.

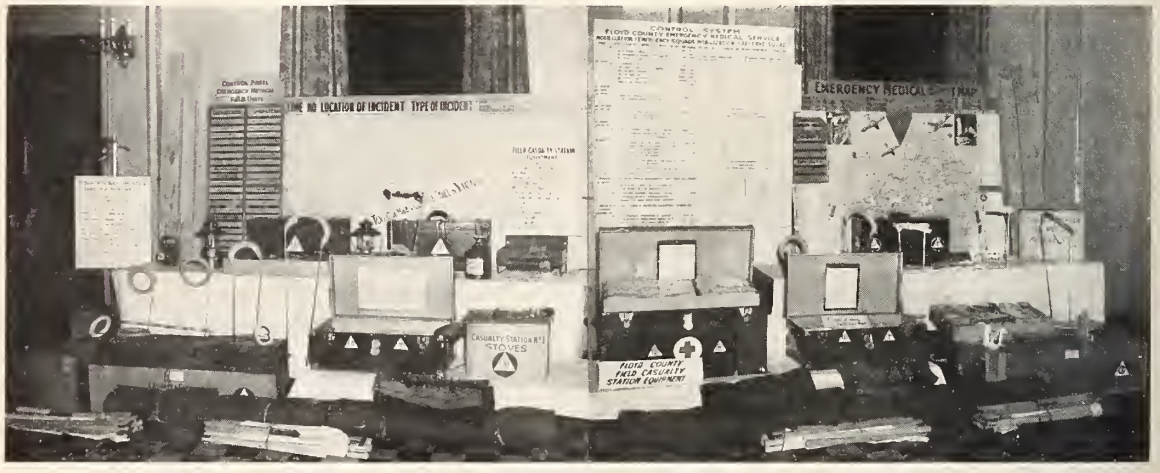
Dr. E. S. Jones, chairman of the Committee on Industrial Health, called for another meeting of the committee on Sunday, November 1, in Indianapolis.

LIST OF THOSE WHO ATTENDED THE INDUSTRIAL HEALTH MEETING AT FRENCH LICK ON SEPTEMBER THIRTIETH

W. J. Burns, Lansing, Michigan
L. Fernald Foster, Bay City, Michigan
Herman C. Groman, Hammond
N. K. Forster, Hammond
A. M. Mitchell, Terre Haute
Emmett B. Lamb, Indianapolis
J. Robert Doty, Gary
G. M. Young, Gary
E. M. Young, Sheridan
H. O. Williams, Kendallville
Stanton L. Bryan, Evansville
J. C. Burkle, Lafayette
Charles C. Crampton, Delphi
Henry C. Metcalf, Connersville
Ernest Rupel, Indianapolis
Herman M. Baker, Evansville
E. M. Van Buskirk, Fort Wayne
John W. Ferree, Indianapolis
H. R. Wilber, Jeffersonville
S. L. Rankin, Charlestown
Paul J. Blessinger, Jasper
H. W. Crooker, Jeffersonville
H. H. Dutton, Martinsville
Albert Stump, Indianapolis
R. W. Waterson, Gary
M. L. Curtner, Vincennes
Harry A. Shields, Hawesville, Kentucky
Louis Spolyar, Indianapolis
C. D. Selby, Detroit, Michigan
E. S. Jones, Hammond
James G. Townsend, Bethesda, Maryland
Orlen Johnson, Chicago, Illinois
M. A. Austin, Anderson
T. A. Hendricks, Indianapolis
E. M. Shanklin, Hammond
Fred W. Rankin, Washington, D. C.
Elmer L. Henderson, Louisville
B. W. Marshall, Nashville, Indiana

HOW FLOYD COUNTY EMERGENCY MEDICAL SERVICE HAS BEEN DEVELOPED

AUGUSTUS P. HAUSS, M.D.
Chief of Floyd County Emergency Medical Services
NEW ALBANY, INDIANA



The United States Office of Civilian Defense was organized primarily for the purpose of protecting lives and property in the event of enemy action. To its medical division is entrusted the responsibility of preparing plans and facilities designed to prevent or alleviate injuries, suffering and public health hazards of the civilian population.

The need for these preparations in Indiana is not related to any belief that our state is in eminent danger of enemy attack. It arises from the fact that the risk of attack from the air, sabotage, enemy action, disease epidemic, fire, flood, tornado, industrial catastrophe or community holocaust is a risk that cannot be ignored; and, because preparations to alleviate or minimize the consequences of a major disaster cannot be improvised on the spur of the moment but must be made, if they are to effective, before misfortune strikes.

A grave responsibility rests on the shoulders of those of us who have been designated to serve as chief of emergency medical services of our county. Little do some realize this responsibility. Yet, should disaster strike, the community where you live and have made your living, the health, welfare and very lives of your neighbors, friends, benefactors, and even your own immediate family and loved ones, may depend on the preparation you have made to safeguard your community.

While many of our professional brothers have

left the peace and tranquillity of home and Hoosier life to serve in the armed forces of our country—all making material sacrifices and some the supreme sacrifice, we who remain at home for one reason or another must recognize our double responsibility and obligation to the home front and not be derelict in performing the duties assigned to us.

New Albany and Floyd County, due to location as well as industries, can definitely be designated as an inland "target area." Situated on the Ohio River, across from Louisville, Kentucky, it is the center of a "hot spot" of war activities. With this thought in mind, the Floyd County Division of Emergency Medical Services has been organized, not with any thought of seeing how big we could make it, how fine we could equip it, or how much money we could spend. . . . We have endeavored to plan a program of medical services in keeping with our facilities, adequate to our probable needs and practical for health protection in times of war or peace.

In planning our medical defense, we first took stock of what facilities we had on hand. We had one general hospital of one hundred beds, and always full. We had a Red Cross Chapter that was well organized. We also had a state tuberculosis hospital which might be utilized, but it was usually full.

Previous experience during a tornado in 1917 and the flood of 1937 had taught us that our emergency medical facilities were not adequate for a major disaster. This previous experience made us quickly realize that the program of Emergency Medical Services of Civilian Defense was not only something we need for the duration of the war, but was a thing we had always needed and should have after the war is over. I believe this applies to most other communities as well.

The Floyd County Plan for Emergency Medical Services is divided into nine main divisions and, although it does not follow to the letter the O.C.D. Plan as outlined in the official bulletins, we believe that it meets the requirements and is more suited to our needs and facilities.

DIVISION NO. 1 is made up of mobile emergency medical field units which were equipped by the Floyd County Defense Council. It consists of two complete ambulance units, two ambulance squad cars, one complete first aid post unit and supply truck and one one-hundred-twenty-bed casualty station unit with complete staff, equipment and transportation. The equipment for each ambulance unit consists of a metal suitcase filled with instruments and emergency supplies, as listed in *O.C.D. Bulletin No. 2;* also, one blanket roll (3 pieces), one set of five wooden traction splints and one army folding stretcher. These are in addition to the regular equipment of wheel stretcher, bedding linens, et cetera, in a modern ambulance.

Each ambulance squad is made up of two physicians, one graduate nurse, one nurses' aid, one civilian first aid leader, one orderly, two stretcher bearers and one messenger. An ambulance squad car (private sedan or limousine) accompanies each ambulance. The physicians, nurses and messengers ride in the squad car and the others ride in the ambulance.

The mobile first aid post unit consists of a metal trunk or locker filled with instruments, dressings, medicines, surgical supplies, rubber sheets, gasoline stove, electric lanterns, utensils, et cetera, suitable for establishing a first aid post near the scene of disaster or replenishing supplies in the ambulance units. There is also included in this assembly one folding metal field operating table, six folding canvas cots, two field stretchers, three blanket rolls of fifteen pieces, two sets of wood traction splints, one Coleman gasoline lantern, and one large carton of cellulose pads for splints. All are assembled ready to be transported in a designated truck when called.

Division No. 1 also includes a complete casualty station or field hospital as one of its mobile units. Five suitable school buildings scattered in different sections of the city have been designated as casualty station sites. Floor plans of each of these buildings have been drawn, and the emergency equipment and facilities spotted. The equipment and supplies for the station are stored in the supply depot at medical headquarters and are ready to be transported on a moment's notice to any designated building.

Equipment includes cots and blankets for a one hundred twenty bed casualty station, and in addition to all supplies and equipment listed in the O.C.D. bulletin, there are included many things which they forgot, such as: bed pans, urinals, toilet paper, waste pails, operating and work tables, pans and basins, et cetera.

We consider this our most valuable unit for emergency medical services. The entire unit can be set up and ready to function in any of the designated stations in less than one hour. In a major disaster it will practically double our emergency bed capacity and relieve much of the burden and strain off the base hospital, leaving its facili-



Floyd County Emergency Medical Service

ties for private practice and the more serious casualties. Two supply trucks have been designated for moving the casualty station equipment.

DIVISION NO. 1, as has been outlined, is the advance First Aid Division of our emergency service. It is the first in the field and all units are mobilized on every trial blackout, practice alarm or actual incident immediately following the "Yellow Signal." The entire division mobilizes in the Medical Headquarters, located in the basement of our state armory.

DIVISION NO. 2 is our Base Hospital Division. It is located at St. Edwards' Hospital. This is our general hospital and has a normal capacity of one hundred beds. It is modern, well equipped, including x-ray, physical therapy, obstetrical and general surgery departments.

When the Civilian Defense Medical Program was inaugurated in our county, the hospital gave us 100 per cent cooperation. They purchased complete equipment for two first aid post units and a casualty station. They have assembled seventy-five additional beds and bedding, provided shades and panels to black out the entire building, and increased their normal complement of sterilizers and other surgical equipment. Fifteen additional overhead fracture frames were placed in the hospital by the Defense Council. These are home-made frames, and they have already proved to be a very practical and useful addition. Two completely equipped and staffed ambulance units are assigned to the hospital and alternate monthly on call for day or night duty.

The personnel and equipment of these units are a duplication of the ambulance squads in Division No. 1. They operate from the hospital on call from the medical headquarters.

In the basement of the hospital we have established a large emergency or casualty station unit including a large emergency room, and space for at least thirty cots or beds. A special ambulance entrance has been arranged for all disaster casualties. Casualties must pass through the basement casualty station before entering the main hospital. Here the casualty receives a preliminary examination. Those with minor injuries are treated and then sent to their homes; or they are put to bed in the casualty station. The more seriously injured are sent on to the general hospital departments for x-ray, major surgery, fracture treatment or general hospital care. This prevents commotion and interference with the regular hospital routine. Two emergency squads have been assigned to duty in the hospital casualty station and hospital; these also alternate monthly on call.

The personnel includes physicians, nurses, nurses' aids, orderlies, stretcher bearers and messengers voluntarily enrolled, and does not include or disturb any of the resident staff or regular employes of the hospital.

One hospital emergency squad and one ambulance unit mobilizes at the hospital on call following the "Blue or Red" signal in all trial blackouts, practice alarms or actual incidents.

Silvercrest Hospital, which is the states' new tuberculosis sanitorium in southern Indiana, houses DIVISION NO. 3. It is a spacious building, normally containing one hundred sixty beds in private rooms, but with available floor space to accommodate at least one hundred sixty additional beds. It is located less than two miles from the city limits. In addition to its regular facilities, including x-ray and surgery, it has purchased one complete first aid post and one casualty station list of equipment and supplies for Civilian Defense Emergency Medical Services. One ambulance squad and one hospital emergency squad have been organized. The personnel includes the resident hospital staff of physicians, augmented by enrolled volunteer graduate nurses, nurses' aids, orderlies, stretcher bearers and messengers.

Silvercrest is to be used as a reserve or clearance hospital, where patients may be taken from the base or general hospital if more beds are needed, and will not receive casualties direct from the field of disaster. Its ambulance squad will be subject to call for field service.

Silvercrest will receive the "Blue or Red" signal in every trial or actual incident, but will not mobilize its volunteer personnel except on special order from the medical headquarters.

The Auxiliary Ambulances and Stretcher Bearers make up DIVISION NO. 4. These are privately-owned station wagons and light delivery trucks equipped with one single mattress, one stretcher, one roll of blankets and one set of splints. Twenty units have been enrolled, and they mobilize on call at the medical headquarters where they receive their equipment and assignment of stretcher bearers.

Approximately eighty civilian volunteers have completed the Red Cross course in first aid and casualty transportation, and have been assigned in teams of four as stretcher bearers for these auxiliary ambulances. Wholesale and retail stores and industries were requested to furnish this personnel. A group of high school students is also included.

DIVISION NO. 5 is the emergency medical reserve personnel and does not include any of those assigned to the hospital or field units. Enrolled in this group are twenty-four graduate nurses, fifteen nurses' aids and eight hospital-trained orderlies. Most of these nurses are not on regular duty, many are married and some are doctors' wives. The nurses' aids are part of the graduates of three classes of Red Cross Nurses' Aid training. A total of thirty-one have completed the course and one hundred fifty hours of hospital duty. Additional classes are now being organized, for this is probably the most important unit of civilian defense.

The orderlies were among twenty-one high

school boys who took first aid training and then were assigned in groups of six to hospital duty under the direct supervision of one of the hospital sisters. They put in ten hours per week for a total of three weeks, for which they received credit in their school work. These boys, mentally superior to the average hospital orderly, were intensely interested in their work and made the best orderlies I have ever seen. Two of them are now planning to study medicine.

In a major disaster food service must be provided for the field casualty stations, and the hospitals must have additional service. Sixty-four qualified volunteers are enrolled in DIVISION NO. 6 for canteen service. A central menu-planning committee, a food-preparation staff, contact and transportation committees, and an auxiliary canteen corps make up the division. They all have had Red Cross first aid training.

OUR SEVENTH, OR INDUSTRIAL DIVISION was one of our hardest problems. Many of the industrialists were so busy making money that they were satisfied with the dirty bottle of iodine and a piece of bandage as a first aid protection for their employes.

It was hard to make them see that the scarcity of doctors and the demands for labor made it necessary for them to do something to protect their plant manpower. However, we now have thirty defense industries and public utilities enrolled in our Industrial First Aid Division. Each one has appointed a plant first-aid leader in charge of an adequate emergency kit, and several are constructing and equipping modern sanitary first-aid rooms and rest rooms for their employes. Red Cross first aid classes have been organized for industrial workers, and an ultimate goal has been set for one trained first-aid leader for every fifty employes.

The public and parochial schools have been organized as DIVISION NO. 8. There is a first-aid kit in every school, and one teacher for every hundred pupils has had Red Cross first-aid training. Each school is to have definite preparations and drills for the pupils' protection in case of air raid, fire, bombing, gas, et cetera.

OUR NINTH, OR FINAL DIVISION, includes a first-aid kit in every public building, theatre and fire house in the city, with a trained first-aid leader in charge of each one. When the New Albany Post Office was asked to join this division, the postmaster not only cooperated but organized a special Red Cross first-aid class for postal employes, and now every mail carrier and postal clerk in New Albany is trained to render first aid.

In order for these various units to function properly without causing undue confusion in the hospitals, a medical headquarters has been established in the basement of the armory. Here are stored the supplies and equipment for the casualty station, the advance field ambulances, the first-aid post and the auxiliary ambulances.

The headquarters staff consists of the Chief, Medical Adjutant, Medical Controller, Stretcher Bearer Co-ordinator, Ambulance Co-ordinator, Medical Auxiliary Co-ordinator, Supply Clerk, Canteen Co-ordinator, two Record Clerks, a Panel Clerk and four Messengers. This is the directing unit of our emergency medical services and the names have been listed in order of authority. The entire staff mobilizes on "Yellow Signal," and if a member is temporarily absent from headquarters it is the duty of the person next in line to take over the job. The medical headquarters operates in conjunction with the Civilian Defense Control Center, which is located in another part of town. At the control center we have a Deputy Medical Controller who reports all casualty incidents and other medical information direct to the controller at medical headquarters over a direct wire.

On the controller's desk at medical headquarters, there is also a direct wire to St. Edwards Hospital. Thus we have constant communication service with the main control center and the base hospital without delay or interruption through the exchange. There is a straight-line telephone on the chief's desk for general calls and messages. Several phones located in other parts of the armory are available if needed.

During a blackout or other incident requiring general medical mobilization, all calls for medical services to a disaster site, single incident on the street, or even in a private home are referred to the medical headquarters.

In the case of a private patient the headquarters endeavors to contact and send the family physician whenever possible. If unable to make contact, the medical adjutant is dispatched to the case. A headquarters ambulance, not subject to disaster call, is stationed at the headquarters during every medical mobilization, to be used only for private cases, street incidents, highway accidents, et cetera. In this way our Civilian Defense Program is aiding instead of interfering with private medical care.

A large personnel control-system chart, showing the source of call, the names and telephone numbers of the entire enrolled personnel of more than five-hundred, is one of the features of our control room. Believe it or not, we can and have called the entire personnel of our hospital, field and headquarters units, and the ambulances and squad cars in less than ten minutes.

An ambulance control panel and black board, a hospital staff panel, and a large emergency medical spot map enable the panel clerk to chart the mobilization and movements of every medical unit and record the disposal of every incident.

Medical messengers are assigned to the Control Center, Hospitals and Medical Headquarters and also accompany the ambulance and casualty station units on all field movements; thus, providing a secondary line of communication in case the phones are put out of operation.

There are many other things connected with our program which I would like to report if time would permit. However, there are a few details I wish to discuss briefly.

Your local Red Cross Chapter is ready and willing to help you. They will train your workers and help in preparing surgical dressings and supplies. Every community regardless of size or location needs Red Cross nurses' aids, classes in home nursing and first aid leaders. Every hospital should have a reserve supply of trained orderlies. The ranks of physicians and graduate nurses are being rapidly depleted by war enlistments. Hospital internes and even externes are now almost a thing of the past. There is work to do in the Red Cross for every woman in your community. There is a job for every man in Civilian Defense. Much of the supplies and equipment for emergency medicine can be homemade in the hobby shop or local industry. Doctors will donate discarded operating tables and furniture and surgical equipment for your casualty station or first aid post. Splints, stretchers and many other items can be made in the manual training department of your high school. The sale of scrap will purchase much of the special equipment you need.

It is up to you, the Chief of Emergency Medical Services, to take the lead in your community. People will listen to and follow their doctor. You will find the work interesting, and you will be able to lie down at night and sleep without a guilty conscience for having failed to do your duty on the home front.

It is inexcusable for a large community not to provide Emergency Medical Services; for a small community, it is a mistake. If there is only one doctor left in your community and you are in just a cross-road town, you do not need, nor can you have an emergency program like a metropolitan city or a hot-spot area; but, you can organize your community to protect the citizens. A bomb aimed at New Albany may hit Corydon or Salem, and a bomb aimed at Louisville may strike New Albany. If you will look at a war-map of Indiana, you will find it to be a close network of munition and military bases and defense industries. It is the crossroad of America at war. It is a bulls-eye for Hitler and Hirohito, and a paradise for the spy and saboteur.

CONCLUSION

In conclusion, and that's the word you have been waiting to hear, I wish to say that I am not an authority on Medical Defense nor is our Floyd County program presented as a model for other communities. It is not perfect, but it is workable. It has functioned well in three trial blackouts and one daylight air-raid alarm. It has given emergency service to practice casualties and taken them from the incident field through the first-aid post, the hospital and casualty station and up to the top floor of the base hospital for x-ray and major surgery. Only one ambulance squad has received a demerit mark, and that was when a graduate nurse turned on the dome light in an ambulance in transit during a blackout in order to fill out a casualty identification card, not realizing that she was making a target of the ambulance squad. We have now turned this job over to the nurses' aids —they know better.

Of course, we are very proud to be the first county in Indiana to be awarded a "Certificate of Merit" by the Fifth Corps Area. We hope that more of these awards will come to Indiana.

Our program has been planned to meet the emergency as we see it, with the facilities we had on hand or could acquire. I was unable to follow Mr. LaGuardia's bulletins to the letter, by putting one pair of mouse-tooth forceps in two carrying cases, or placing the base hospital fifty miles out in an adjoining county when there was not a hospital in fifty miles of adjoining counties. I am glad that every physician in Floyd County, physically able, graduated in Red Cross First Aid before Dr. Ferree issued a bulletin that it was not necessary—and I think that it is his only mistake. It may have been a "pressure point," as we say in first aid. I hope that no boy scout snickers when you put on a triangular bandage. Dr. Ferree, our State Chief, Mr. Robinson, the Lay Deputy, Dr. Brother, Dr. Leonard and the State Committee are all doing a splendid piece of work in Medical Defense and deserve the complete coöperation of the medical profession of Indiana.

A booklet, or Blue Book, has been issued to our enrolled personnel, listing our program and instructions to the various units. I think the Foreword of this booklet summarizes the Floyd County Plan as we see it. I quote:

> "The following program of Emergency Medical Service for Floyd County is not a plan for a day or the duration, but it is planned to serve the community in any disaster for many years to come. In war or peace, flood or tornado, catastrophe or holocaust, Floyd County will now be prepared to meet the emergency.
>
> "It involves a personnel of over five hundred volunteers, who have enthusiastically spent many hours of work and training in its preparation. Its equipment is adequate. Many incidents of outstanding service are deserving of special mention. None should be individually acknowledged when all were willing.
>
> "You who have been honored by being enrolled in the personnel of this program of Civilian Defense have been assigned to a definite duty and an important responsibility which you must know and be ready to respond to whenever called.
>
> "Study these pages in order that you may be better prepared to serve your country and your community.
>
> "You will note that many of your associates in this program have already joined the armed forces of our country. Others will follow.

Their names will continue to be carried in these pages; for this is a permanent program and we ask God to protect them and return them some day to this community.

"Many changes in this program have already become necessary; many others will be made. Our ranks will be thinned as time goes on, and those of us who must remain at home must carry on. It is our responsibility. We must not fail.

"Your position in this program is an important part of Civilian Defense. You are asked only to do your duty. Regardless of convenience or sacrifice, personal desire or interests, Civilian Defense must come first.

"Your personal privileges and private interests will not be unduly disturbed. The work of this program will be distributed fairly and without favor.

"We are confident of your loyalty and we anticipate no slacking. None will be tolerated.

"With this statement of purposes and principles, we pledge ourselves to service and in honor of those of our community who are now in the Armed Forces.

"THIS PROGRAM IS DEDICATED TO:
DR. THOMAS H. HEWLITT

New Albany's first medical officer in the present war whose record of brave and skillful service is written in blood in the history of Bataan and Corregidor—

HIS FATE UNKNOWN."

ABSTRACTS

JOURNAL EXPOSES FALSE CLAIMS IN ANTI-INOCULATION PAMPHLET

False statements and misrepresentations contained in an anti-inoculation pamphlet and a letter promoting its circulation are exposed by *The Journal of the American Medical Association* in an editorial in its September 19 issue headed "The Chiropractic Theory of Patriotism." Both the letter and the pamphlet are assailed by *The Journal* as not only replete with lies, false insinuations and totally unscientific and malicious propaganda, but also dangerous to the health and morale of the armed forces and the American public. *The Journal* says:

"The National Serological Society at Davenport, Iowa, has mailed to the chiropractors of the country a letter dated September 3 suggesting that the recipient order so many hundred or so many thousand copies of a four page antivaccinationist pamphlet. The letter contains the following irrelevant statements:

" 'We have records from the Surgeon General showing that syphilis in compulsory vaccination states is thirty times more prevalent than in states where compulsory vaccination is prohibited by law! Hughes' practice of medicine 14th edition page 184 lists syphilis as one of the complications caused by smallpox vaccination.'

"The secretary of a state board of health writes that the pamphlet is being circulated among superintendents of schools in which that board of health is promoting a campaign for immunization.

"The letter and the pamphlet indicate that the president of this organization is Cash Asher. Asher is the author of a tirade against the editor of the *The Journal* [*of the American Medical Association*] in particular, and the American Medical Association in general, entitled 'Your Life Is In Their Hands.' According to the *International Chiropractic News* for July-August 1942, he is also public relations director of the International Chiropractors Association.

"The pamphlet itself, entitled 'Under the Red White and Blue,' contains the amazing misinformation that *the British government abolished compulsory vaccination and inoculations of all kinds in the army, navy and marine corps in 1939.*

"The pamphlet discusses with complete disregard for facts or statistical science the rates of smallpox in Italy and Mexico as compared with the United States.

"After referring to a United Press release dealing with the 28,585 cases of jaundice associated with inoculation against yellow fever, the pamphlet adds:

" 'It is doubtful if we would have that many cases of yellow fever if we sent our entire army into the jungles of Africa.'

Mr. Asher has of course no knowledge of yellow fever and probably not enough about jaundice to warrant a comparison.

"The pamphlet says:

'An investigation by Congress will reveal that thousands and thousands of American soldiers are collapsing after being inoculated. Evidence indicates that between 20 and 40 per cent have to be hospitalized, and that many are incapacited for service. . . . Congress should find out why England abolished compulsory inoculations in the armed forces. . . . Who is profiting from the sale of serums to the Army and Navy? . . . We are glad to serve our country, but why maim and immobilize soldiers before they have a chance to serve?'

"These statements are typical of the lies, false insinuations and similar statements dangerous to Army and public morale promulgated by those who would hinder the war effort.

"In time of war, epidemics constantly threaten. The protection of troops against epidemic disease by routine immunization is accepted as sound practice by the armies of all the warring nations. At a time when the health of the nation, both civilian and armed forces, is essential to eventual victory, such totally unscientific and malicious propaganda continues to arise from sources like Cash Asher. And he is public relations director of the International Chiropractors Association!"

WARN AGAINST THE USE OF SULFATHIAZOLE FOR INFECTIONS WITHIN THE SKULL

Their findings in experimental investigations of the use of the sulfonamide drugs for intracranial infections constitute "a clear warning against the intracranial use of sulfathiazole," Cobb Pilcher, M.D., Ralph Angelucci, M.D., and William F. Meacham, M.D., Nashville Tenn., report in the July 18 issue of *The Journal of the American Medical Association.*

The development of convulsions in a very high percentage of their investigations following the implantation of sulfathiazole, the three physicians say, "prompts this preliminary report, as a warning against the clinical use of this drug in this manner. . . . Sulfanilamide and sulfadiazine do not appear to have the same irritating effects on the cerebral cortex, but until microscopic studies are completed no conclusion can be drawn in this regard."

PLANS TO MEET NEED FOR MEDICAL CARE

(The following material is reprinted from *The Journal of the American Medical Association* of October 10, 1942, Volume 120, No. 6.—Editor's Note.)

"Plans for meeting the need for medical care in communities where a shortage of physicians has developed are being made now by the U. S. Public Health Service and the Procurement and Assignment Service of the War Manpower Commission, Paul V. McNutt, chairman of the War Manpower Commission, announced, September 22. He added that the two services are cooperating closely in the planning of this emergency action.

"Mr. McNutt explained that in many areas an acute need for medical service has arisen as a result of extraordinary increases in population brought about by expansion of war industries or other war activities. In other areas there is shortage of medical service resulting from the entry of physicians into the armed forces.

"Distributed throughout the industrial areas of the country are more than three hundred communities in which the lack of medical care is being felt. The chairman pointed out that among the most critical of these localities are Baltimore County (around Glenn L. Martin Company); Valparaiso, Fla.; Huntsville, Ala.; Childersburg, Ala.; LaPorte, Ind.; Charlestown, Ind.; Fort Knox, Ky.; Rantoul, Ill.; Texarkana area; Bremerton, Wash.; Pryor-Choteau, Okla.; Vallejo, Calif.; Velasco, Texas; Waynesville, Mo.; Wichita Falls, Texas, and Norfolk, Va.

"Mr. McNutt also announced his approval of a statement of policy adopted by the directing board of the Procurement and Assignment Service in which the Procurement and Assignment Service accepts the responsibility of ascertaining the needs of the civilian population for medical service and providing the medical personnel to meet them.

"The principles set forth in this policy statement, Mr. McNutt said, were developed in cooperation with the federal officials concerned and have the approval of the Surgeon General of the United States Public Health Service. The statement has been approved by the boards of trustees of the American Medical Association, the American Dental Association and the war service committees of the two associations, and the executive committee representing the State and Territorial Health Officers Association.

"Following are the principles recommended by the directing board of the Procurement and Assignment Service for meeting the emergency needs:

"1. That it is a responsibility of the Procurement and Assignment Service to ascertain the needs of the civilian population—nonmilitary—for medical service.

"2. That it is the responsibility of the Procurement and Assignment Service to aid in providing the medical personnel to meet these needs.

"3. That, as now constituted, the Procurement and Assignment Service is not in a position to deal with the financial and administrative problems involved in the provision of medical care.

"4. That as far as possible these problems should be met at the state level in view of the many different types of problems and needs and the relation of these and their solution to local situations.

"5. That a survey of these needs should be made by the existing committees of the Procurement and Assignment Service with the aid of such technical assistance as may be necessary. It is especially desirable that in determining these needs the state procurement and assignment committee seek the cooperation of the state health department, of the state medical society and of the state dental society, of industry, of organized labor and of other agencies, such as the state defense council, which should be able to make significant contributions to the solution of this problem.

"6. That whenever possible the civilian needs as determined by these committees should be met

MORE YOUNG PHYSICIANS FOR THE ARMY

Under Medicine and the War in this issue of The Journal appears a statement authorized by the Office of the Surgeon General relative to the recruitment of physicians for the Medical Department of the Army. The points made in that statement may be succinctly stated as follows:

1. Doctors who volunteered in 1940 and early in 1941 must be promoted, so that doctors who volunteer now should not expect initial appointments in the higher grades.

2. Active recruitment must continue to keep pace with the needs of the armed forces. Doctors declared available by the Procurement and Assignment Service are now being directly recruited by the Medical Corps.

3. Young physicians are most needed. In many places they seem to be reluctant to enroll. The Surgeon General requests older physicians to urge enrollment of these younger men.

4. The official way to volunteer is application on the regular War Department forms. No other method of volunteering is official.

5. Every effort is being made to assign men with special training to the work for which they are best fitted.

6. Read particularly the five paragraphs under the heading "Some Don'ts" on page 458 of the October 10, 1942, issue of *The Journal of the American Medical Association*. Cooperation will aid efficiency necessary to win the war.

through local arrangements, resources and agencies. In case assistance is needed for the organization, administration or financing of necessary medical or dental services in these areas, the responsibility should devolve on an agency which should include representatives of the state health department, the state medical society and the state dental society, with the cooperation and support—financial and technical—of the appropriate federal agencies, the administration of funds being delegated to the appropriate state agency.

"7. That, since these problems have been occasioned by the war and in many instances transcend state lines, the federal government has a definite responsibility to cooperate with the states in meeting these needs by the provision, when necessary, of financial and technical assistance.

"8. That the needs for medical care in certain areas are so acute and the pressure from various sources so great that it is imperative to have prompt action for implementation of this program. It appears to the directing board that the responsibility for the initiation of such action rests with the War Manpower Commission."

UNDER THE CAPITOL DOME

RED CROSS BLOOD DONOR CENTER

During the past thirteen months, 38,000 Hoosier citizens have contributed a pint or more of their blood to the Blood Donor Center operated by the Indianapolis Chapter of the American Red Cross.

The Indianapolis Center, established September 27, 1941, is one unit of what has been described as the biggest venture in the history of medicine; seventeen other units are in operation in other large cities scattered throughout the country.

Despite the tremendous number of persons who have contributed blood, the number of unfavorable reactions has been slight, and all of a temporary nature. Dr. Clyde G. Culbertson, technical advisor for the center, said that the unfavorable reactions at the Indianapolis Center have been approximately at the national average, which is three and one-half per cent.

The staff at the Indianapolis Center "bends over backwards" to protect the prospective donors. A prospective donor is first given a medical history card, which asks the donor whether or not he has had any serious illness; illness in the last month; malaria; tuberculosis; a persistent cough; pain in the chest; coughed up blood recently; shortness of breath; swelling of the feet; fainting spells; or convulsions. The temperature, pulse, hemoglobin count, and blood pressure of the prospective donor also are taken.

Dr. Culbertson expressed the opinion that an honest reply to the questions, plus the routine examination given prior to bleeding, gives the examining physician sufficient knowledge of the prospective donor to know whether he should be permitted to make the contribution.

Occasionally, however, some persons inspired by patriotic zeal answer the questions dishonestly; it is among that group, for the most part, that the unfavorable reactions occur. The examining physician has, of course, no way of checking up on the truth or falsity of the answers.

While the Blood Donor Center welcomes large groups of donors from industries or organizations, it does not want any individual member of a group to be "pressured" into making a blood donation when he has reason to suspect that he should not do so, Dr. Culbertson said. He urged that the advice of a physician should be sought by any person who is doubtful as to the consequences of his making a blood donation.

For several months, Dr. Culbertson said, some physicians had sent in patients with high blood pressure. The center accepted them, but now, under a ruling of the National Red Cross organization, prospective donors with high blood pressure are rejected. Bleeding of such patients should be done at a hospital, he said. The Blood Donor Center cannot accept them.

The 38,000 blood donors have contributed 40,000 pints of blood during the thirteen-month period. Contributions have been made directly at the Center, which is located on the second floor of the Indianapolis Chamber of Commerce Building, and through the center's mobile unit which travels to communities within a radius of ninety miles from the Center.

Approximately one-third of the total blood collection has been made by the mobile unit. The unit comprises a doctor, staff of nurses, and driver. They travel in a specially-equipped truck which keeps the blood at proper temperature. The truck returns to Indianapolis each night, even if the staff remains in the community where bleeding is in progress.

The Center is now getting ready for the operation of a second mobile unit. When this goes into use, the present quota of the Indianapolis Center may be increased above the present 1,500 units of blood a week. The quota now in effect was assigned by the national Red Cross on August first. Previous quotas were much smaller.

The staff at the Center comprises two physicians and about ten nurses. The Center is equipped with sixteen beds, and the staff arranges the bleeding schedule so that donors are required to

give only about forty-five minutes of their time.

Donors are instructed not to eat solid food, milk, cream or fats for four hours before going to the Center. Following the bleeding the donors are given a light refreshment, including milk, chocolate milk, or soft drink, ice cream and cookies.

STATE BOARD WILL GIVE TWO EXAMINATIONS

Departing from its custom, the Indiana State Board of Medical Registration and Examination will this year conduct two examinations for license to practice medicine.

The added examination, to be known as a mid-year examination, results from war needs. In adding the second examination the state board will keep pace with the accelerated program of the medical schools. Admission of new physicians to practice as soon as possible will help relieve the shortage of medical men at home, and will at the same time make it possible for additional doctors to enter the armed services earlier than under the pre-war system of only one examination each year.

The mid-year examination will be held in Indianapolis January 13, 14, and 15, and will be conducted by the full board. The dates set for the examinations follow immediately after the regular annual meeting of the board.

SHEPPARD GOES TO RED CROSS

Virgil Sheppard, known to many Hoosier physicians through his work as director of the Division of Public Assistance of the Indiana Department of Public Welfare, has resigned from the department and is now executive director of the Indianapolis Chapter of the American Red Cross.

During his last year in the welfare department Mr. Sheppard had charge of the task of building the administrative and supervisory machinery for the Medical Aid Program.

In his new post he will direct the huge wartime program of the state's largest Red Cross chapter.

Deaths

Olive B. C. McCurdy, M.D., of Indianapolis, died on September twenty-first at the age of seventy-six. She was a graduate of the Central College of Physicians and Surgeons, Indianapolis, in 1891.

* * *

Walter E. Hendricks, M.D., of Martinsville, died on August twenty-first. He was eighty-nine years of age. Doctor Hendricks graduated from the Medical College of Ohio, Cincinnati, in 1878.

* * *

Samuel B. Grubbs, M.D., of Carmel, died on September nineteenth, at the age of seventy-one. He graduated from the Columbia University College of Physicians and Surgeons, New York City, in 1896.

* * *

Enoch E. Long, M.D., of Shoals, died at his home on September twenty-third, at the age of seventy-three. He was graduated from the Louisville Medical College, in 1897. Doctor Long was a member of the Daviess-Martin County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Aubrey L. Loop, M.D., of Crawfordsville, died September fifth, aged sixty-seven. He graduated from the Medical College of Indiana, Indianapolis, in 1899. Doctor Loop served in the United States Medical Corps in World War I. He was a member of the Montgomery County Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

John H. Cook, M.D., of Terre Haute, died September fifth, aged sixty-one. He graduated from the Miami Medical College, Cincinnati, in 1906.

* * *

Norman C. Reglien, M.D., of Michigan City, died September eleventh, aged thirty-eight. He graduated from the University of Michigan Medical School, Ann Arbor, in 1909.

* * *

Bert V. Chance, M.D., of Windfall, died on September fourteenth, at the age of sixty-eight. He was a graduate of the Medical College of Indiana, Indianapolis, in 1897. He served overseas in the Medical Corps during World War I. He was a member of the Tipton County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Charles R. Sowder, M.D., of Indianapolis, died on September twenty-ninth, at the age of seventy-two. He was a graduate of the Central College of Physicians and Surgeons, Indianapolis, in 1898. During World War I he served overseas as a major in the Medical Corps. Doctor Sowder was a member of the group of physicians who organized the State College of Physicians and Surgeons, in 1906, which later became the medical department of Indiana University. He was for years a member of the faculty of that institution. Doctor Sowder was a member of the Indianapolis (Marion County) Medical Society, the Indiana State Medical Association, and the American Medical Association.

Military News

The editorial staff of THE JOURNAL shall be pleased to have information concerning the movements, et cetera, of physicians in the armed forces and those being called to the service. We would like to have whatever information anyone wants to send. This applies to those who are in military service as well as those who hear from their friends in the armed forces.

Word has been received that Captain Sidney S. Aronson, M.D., of Indianapolis, is now chief of the E.N.T. Department at the Station Hospital, A. A. F. C. C. S., Smyrna, Tennessee.

Dr. W. W. Ayres, of Hartford City, has been commissioned as a lieutenant commander in the United States Navy, and is now at the naval submarine base in New London, Connecticut.

Dr. E. W. Bailey, of Logansport, has been commissioned a first lieutenant in the Army Medical Corps and is now on active duty at Fort Riley, Kansas.

Dr. L. S. Bailey, of Zionsville, has been appointed a surgeon in the United States Naval Reserve with the rank of lieutenant commander, and is now at the naval base at Norfolk, Virginia.

Dr. Wallace D. Buchanan, of Bremen, is now a lieutenant on duty at Norfolk, Virginia, in the Medical Corps of the United States Navy.

Dr. Charles Eugene Cook, of North Manchester, has been appointed a first lieutenant in the Army Medical Corps and is now stationed at Lowry Field, Denver, Colorado.

Dr. Fred Clark, who had practised in Syracuse for several years, is now with the armed forces at San Antonio, Texas.

Dr. Joseph H. Clevenger, of Muncie, has been commissioned a major by the United States Army and is serving with the armed forces at William Beaumont General Hospital, El Paso, Texas.

The Floyd County Civilian Defense Council has been awarded a Citation for Merit, by Dan T. Moore, regional director of the Fifth Region Office of Civilian Defense, for its Emergency Medical Services. (For more information concerning the Floyd County Emergency Medical Service, please refer to page 642.)

Lieutenant Commander Arnold H. Duemling, physician and surgeon of Fort Wayne, is now on active sea duty with the Atlantic fleet.

Dr. Edgar A. Garland, of Indianapolis, has been commissioned as a captain in the Army Medical Corps and is serving as attending surgeon at Morris Field, Charlotte, North Carolina.

Dr. Richard E. Gery, of Lafayette, has recently received his commission as a lieutenant in the United States Army and is now on duty at Lubbock, Texas.

Dr. E. H. Hall, of Dunkirk, has been commissioned a captain in the Army Medical Corps and is now on duty at Gruber, Oklahoma.

Dr. Jay Havice, of Fort Wayne, has received his commission as a major in the United States Medical Corps. He served overseas in World War I.

Dr. Russell S. Henry, Indianapolis physician, has been commissioned as a lieutenant commander in the Naval Reserve, and is now at the base hospital at the Great Lakes Naval Training School.

Dr. Herman G. Haffner, who had been in practise in Fort Wayne for the past two years, has been commissioned a captain in the United States Army and is now on duty at Fort Hayes, Columbus, Ohio.

Dr. Robert Hedgcock, of Frankfort, has received his commission as a captain in the United States Army, and is now on duty at Scott Field, Illinois.

Dr. Howard E. Hill, of Muncie, is now a major in the United States Army and is stationed in the Air Force Technical School, in Chicago.

Dr. Marion W. Hillman, of South Bend, is now at the Wellston Air Depot, Georgia, serving as a captain in the United States Army.

Word has been received that Lieutenant Commander Jesse S. Spangler, formerly of Kokomo, who entered active duty at the United States Naval Training Station, Naval Operating Base, Fifth Naval District, Norfolk, Virginia, last July was later detached to The Bureau of Naval Personnel, Washington, D. C., and then ordered to temporary duty at the Third Naval District in New York.

Lieutenant Colonel Jesse W. Bowers, M.D., formerly of Fort Benjamin Harrison, has been transferred to Camp Breckenridge, Morganfield, Kentucky, as commanding officer of the camp hospital, which is a two thousand bed institution.

Dr. Maurice V. Kahler, of Indianapolis, has been commissioned a lieutenant commander in the United States Navy and is now at the Naval Aviation Reserve base near Peru.

Dr. Robert E. Kinneman, of Greenfield, has received his commission as a lieutenant commander in the Navy Medical Corps, and is now on duty at Charleston, South Carolina.

Dr. Knight L. Kissinger, who has been in practice at Angola for the past year, has been commissioned a lieutenant in the Army Medical Corps, and is now stationed at Fort Ord, California.

Dr. George G. Lenk, of Fort Wayne, was assigned a first lieutenant in the Army Medical Corps at Fort Hayes, Ohio.

A thirty-day training period at Fort Harrison will be received by Dr. Clarence D. Mendenhall, of Indianapolis, who has been commissioned a captain in the United States Army.

Dr. R. M. McDonald, of South Bend, is now a captain in the Army Medical Corps, stationed at Omaha, Nebraska.

Dr. David A. Morrison, of Kokomo, who enlisted in the United States Medical Corps, is now a lieutenant commander at the Naval Air Base near Peru.

Dr. Jesse R. Logan, of Evansville, has been commissioned a captain in the United States Army Medical Corps, and is now stationed at Billings Hospital, Fort Harrison, Indiana.

Dr. Harry E. White, of Martinsville, has recently been promoted from captain to major in the United States Army Medical Corps, and is now attending the Carlisle Barracks Medical Field Service School in Pennsylvania.

CITED FOR HEROIC SERVICE

Captain Joseph E. Walther, M.D., formerly of Rushville, who is serving as an army flight surgeon, has been cited for the second time for distinguished service in Mid-Pacific action. Captain Walther was previously awarded the Soldier's Medal, and his latest citation gives him the bronze Oak-Leaf Cluster. Captain Walther has been frequently mentioned in stories of the Midway battle for heroic rescue work performed by him while under Japanese bombing. Indiana is proud of Dr. Walther.

Dr. Malcolm E. Miller, of Goshen, commissioned as passed assistant surgeon in the United States Public Health Service, is now on duty at the marine hospital, Chicago.

Former Princeton physician, Dr. Virgil McCarty, a captain in the United States Army, is now stationed at the Headquarters of the Seventh Service Command, Omaha, Nebraska.

Dr. Robert J. Millis, of Crawfordsville, has been commissioned a captain in the United States Medical Corps, and is now stationed at Camp Bowie, Texas.

Dr. Jack McKittrick, of Washington, who has been with the ferry command of the United States Army Air Corps at Great Falls, Montana, has been transferred to Randolph Field, Texas.

Dr. Ernest B. Norris, of Middlebury, is now a first lieutenant in the Army Medical Corps, stationed at Camp Haan, coast artillery post near Marsh Field, Riverside, California. He formerly served with the Medical Reserve as a CCC surgeon in this area.

Dr. W. R. Tindall, of Shelbyville, has been commissioned a lieutenant in the United States Naval Reserve and is now on duty at the naval base at San Diego, California.

Dr. F. M. Williams, Jr., of Pendleton, has received his commission in the United States Navy as a lieutenant, and reported for duty at Norfolk, Virginia.

Enlisting on June first, Dr. Charles O. Weddle, of Lebanon, is now a first lieutenant in the United States Air Corps, and is on duty at Beggs Field, El Paso Texas.

Oakland City physician, Dr. Russell W. Wood, lieutenant (s.g.) in the United States Navy, is now stationed at Davisville, Rhode Island. He had been at the Great Lakes Naval Training School since September first.

Captain Dan E. Talbott, M.D., Indianapolis physician, is now on duty at Wellston Air Depot, Warner Robins, Georgia.

Lieutenant Durward W. Paris, M.D., of Kokomo, has been appointed head of the x-ray staff at Billings General Hospital, Fort Harrison, Indiana.

Dr. Benjamin F. Pence, a practicing physician at Columbia City for twenty-two years, has been commissioned a major in the United States Army and is now stationed at the Billings General Hospital, Fort Harrison, Indiana.

Dr. R. B. Smallwood, of Bedford, has received a commission as captain in the Army Medical Corps and is now stationed at Bowman Field, Kentucky.

Dr. John Kenneth Jackson, who has been associated with his father in the practice of medicine at Aurora, has been commissioned a lieutenant (j. g.) in the United States Naval Reserve, and is now in training at Norfolk, Virginia.

Montgomery County physician, Dr. H. C. Wallace, of Crawfordsville, has been commissioned a major in the United States Army Medical Corps and assigned to duty with the University of Illinois evacuation hospital unit.

A promotion from captain to major in the United States Army Air Forces has been given to Dr. Will W. Washburn, of Lafayette, who is now stationed as a flight surgeon with the 81st Fighter Group at Muroc Air Base, Muroc, California.

Dr. Neal Baxter, of Bloomington, and Dr. Arthur P. Rhamy, of Wabash, are taking training as flight surgeons at the Navy Air Base at Pensacola, Florida. It is reported that Dr. Baxter and Dr. Rhamy will be the first Navy flight surgeons from Indiana.

The Indianapolis Chapter of the American Red Cross has received the Army-Navy "E" Award. The award was made for the part the chapter has taken in the Red Cross blood donor service. The ceremonies were conducted at the Indiana War Memorial. Colonel Ira Peak, stationed at the Indiana University School of Medicine, presented the "E" pennant to W. I. Longsworth, chairman of the Red Cross Chapter, and Captain Henry L. Dollard, of the Great Lakes Naval Training Station, presented the "E" pin to Dr. Clyde G. Culbertson, technical adviser for the Red Cross Blood Donor Center.

We quote from a letter received from Lieutenant E. W. Dyar who is located in Kansas City, Missouri:

"Two weeks ago today I saw the Iowa Pre-Flight team play Kansas University and certainly it is one great aggregation that Berney Bierman has gotten together. It was really quite a day, I had tickets for the press box, and saw the first half from there, and sat on the players' bench the second half. Also met Bierman and you really understand why he is the coach that he is. In a rather quiet sort of way, he is one of the most outstanding personalities with whom I have ever come in contact."

The following letter has been received from one of our Hoosier physicians who is serving with the armed forces in the Pacific:

"September 10, 1942
Somewhere in the
Southwest Pacific

"U. S. Naval Construction Batt. No. 6,
Navy U. U. B.,
c/o Postmaster,
San Francisco, Calif.

"Yes, it's been quite a while since I have written; mail both incoming and outgoing has been quite a problem. In the first place, until I got to be censor, we were limited to three letters a week, of 250 words each—while aboard ship—since that time I've been so d——d busy with other people's mail that I have a minimum amount of time for my own. Today, I have enlisted other help, thus this letter.

"As you probably know through . . ., we have landed temporarily on an island, identification of which is none of your business according to me and the government. It may be said that it is west of the International Date Line, and south of the equator.

"Medicine and surgery is being practiced out here in a manner never seen before, at least by me. As a matter of fact, Ephraim McDowell's oophorectomy in Kentucky probably was a masterpiece, on account of . . . . D——d near the last straw was broken three days ago—the generators on my gasoline stoves burned out. Am in the process of constructing a clay furnace to burn charcoal; maybe it will work if I can remember how charcoal is made! I think I can par-burn some dried cocoanut hulls and do it and thus sterilize my instruments.

"Yesterday it rained. There would have been quite a bit of amusement if you could have seen me fixing the sides of the tent to act as an eavestrough leading to a used oil drum to save water. Instead of gasoline rationing, as you probably have by now, we are rationed to a gallon of water a day—presumably to be used for bathing, drinking and all other uses to which water might be put. It isn't quite that strict but that is the program advanced—so, unless by hook or crook, other water is obtainable, one bathes and washes clothes in salt water which is a formidable proposition.

"Junior just came in from a romp; Junior is any one of thousands of small lizards. He is small and harmless, and aids quite a bit in camp sanitation by helping to keep down the flies. He got tossed out of my shaving kit yesterday and hasn't been back until just now. He also has been quite hurt because I refuse to share bunks with him. He thinks it should be his day and night.

"What has been going on? I have tried hard to imagine the condition of home, but it's almost impossible.

"Just had a short interrupation; a compadre of mine from Indiana University, now a Lt. in the Marines just dropped in for dinner. We discussed the conditions. Instead of how much money does one have, the question here is—how well are you equipped. Up to now the Navy has adequate amounts.

"I'm fine. No malaria or other things dreadful to this climate as yet. As to the Japs, that, too, is none of your business, although you know more about how the campaign is coming along than do I.

"Nature does marvelous things. Sulfanilamide and hardy men make things easier for the doctor in this area."

Captain Frank W. Ratcliff, formerly of Lafayette, entered active duty on July thirty-first and was assigned to the Station Hospital at New Orleans Staging Area, New Orleans, Louisiana, and is acting as chief of the Anesthesia and Operating Room Section. The hospital is still in process of construction, so he has had the pleasure of building up the department from empty rooms to a busy, workable operating pavilion.

The Camp Atterbury Hospital, which has recently been completed and has accommodations for 1,500 beds, and an emergency enlargement of 2,500, is reported as being one of the finest and most modernly equipped hospitals in the nation. It is built of concrete and is the only permanently-constructed unit at the camp. Colonel Charles S. Hendricks, formerly of Altoona, Pennsylvania, is in charge of the hospital as camp surgeon.

INDIANA PHYSICIANS IN MILITARY SERVICE

(This is a supplementary list covering the physicians who have entered service since the original lists were published in July and September, 1942.—Editor's Note.)

Name and Home Address	*Station*
Capt. John E. Alexander, Evansville	
First Lt. J. W. Anderson, Indianapolis	Camp Claiborne, La.
Capt. Sidney S. Aronson, Indianapolis	Smyrna, Tenn.
Lt. Comdr. Wendell W. Ayres, Hartford City	New London, Conn.
Capt. Robert S. Ball, Lebanon	Camp Gruber, Okla.
Capt. W. M. Barton, Centerville	Muskogee, Okla.
First Lt. Norris Beasley, Indianapolis	
Lt. Comdr. Erwin Blaekburn, South Bend	Norfolk, Va.
C. L. Boiee, Indianapolis	
Lt. Wendell E. Brown, Indianapolis	Norfolk, Va.
Lt. I. D. Clark, Charlestown	Camp Joseph T. Robinson, Ark.
Capt. William R. Clark, Fort Wayne	
Capt. John H. Combs, Evansville	Hot Springs, Ark.
First Lt. Charles E. Cook, North Manehester	Lowry Field, Colo.
Capt. Charles J. Cooney, Fort Wayne	Nashville, Tenn.
Capt. Dwight DeWees, Indianapolis	Camp Breckenridge, Ky.
Major George Dillinger, French Lick	Atlanta, Georgia
First Lt. Herbert L. Egbert, Indianapolis	Miami Beaeh, Fla.
First Lt. Wm. F. Englebert, Fort Wayne	San Franeiseo, Calif.
Lt. Comdr. John W. Ferree, Indianapolis	Parris Island S. C.
First Lt. M. B. Ferrell, Indianapolis	Miami Beaeh, Fla.
Lt. (j. g.) Warren Fischer, Indianapolis	
Major Riehard Good, Kokomo	Sault Sainte Marie, Mieh.
Lt. O. P. Hannebaum, Indianapolis	Mare Island, Calif.
Russell Havens, Cieero	
First Lt. Martin C. Heek, Jasper	
Capt. Morton Helper, Evansville	Springfield, Missouri
First Lt. John Hurley, Daleville	Fort Bliss, Texas
Abraham I. Jaekman, Hammond	
Lt. J. K. Jaekson, Aurora	Norfolk, Va.
Capt. Leo E. Jordan, Lynn	Harlingen, Texas
Lt. Comdr. Maurice V. Kahler, Indianapolis	Peru, Indiana
Capt. Charles Kenyon, Cambridge City	Camp Butner, N. C.
Capt. Bennett Kraft, Indianapolis	Camp Gruber, Okla.
First Lt. L. T. Kudele, Whiting	Long Beaeh, Calif.
Lt. P. T. Lamey, Anderson	Portsmouth, Va.
Capt. Carl J. Langenbahn, South Bend	Bowman Field, Ky.
Chas. Leieh, Evansville	
First Lt. Charles H. Maly, Indianapolis	
First Lt. S. S. Manalan, Indianapolis	Maxwell Field, Ala.
Capt. Virgil MeCarty, Princeton	Camp Livingston, La.
Capt. James R. MeLaughlin, Logansport	Washington, D. C.
First Lt. James S. Murray, Indianapolis	MaeDill Field, Fla.
Lt. Louis T. Need, Indianapolis	Great Lakes, Ill.
Lt. (j. g.) Myron H. Nourse, Indianapolis	Philadelphia, Pa.
Lt. Comdr. Carroll O'Rourke, Fort Wayne	Norfolk, Va.
Capt. George T. Paulissen, Indianapolis	Fort Harrison, Ind.
Capt. Wm. E. Pearson, Wabash	Camp Grant, Ill.
B. F. Penee, Columbia City	
First Lt. Lewis Pollak, Indianapolis	Miami Beaeh, Fla.
Milton F. Popp, Fort Wayne	Great Lakes, Ill.
Capt. Willis L. Pugh, Evansville	Camp Campbell, Ky.
Thomas W. Reul, Indianapolis	
Lt. Wm. S. Robertson, Spiceland	Great Lakes, Ill.
Capt. C. V. Rozelle, Anderson	Topeka, Kansas
Lt. Comdr. Earl M. Schellhouse, Fort Wayne	Norfolk, Va.
Lt. Comdr. K. E. Selby, South Bend	Great Lakes, Ill.
R. B. Smallwood, Bedford	
Lt. Comdr. Joe W. Sovine, Indianapolis	San Diego, Calif.
Lt. Comdr. Jesse S. Spangler, Kokomo	New York City
Lt. Comdr. J. H. Stamper, Middletown	Bremerton, Wash.
Lt. Comdr. Walter Stoeffler, Indianapolis	Bethesda, Md.
Lt. Wayne B. Stone, Carmel	
R. B. Stout, Elkhart	
William R. Tindall, Shelbyville	
Daniel Vraein, Griffith	Nashville, Tenn.
Major M. E. Whitlock, Mishawaka	Fort Harrison, Ind.
Ralph Wilmore, Indianapolis	
Lt. Comdr. Leslie Wilson, Fort Wayne	Peru, Indiana
Thomas Youman, Lafayette	

INDIANA PHYSICIANS WHO HAVE BEEN COMMISSIONED BUT WHOSE DATE OF ACTIVE DUTY HAS NOT YET BEEN REPORTED TO HEADQUARTERS OFFICE

(Some of the below listed physicinns have probably entered the armed forces, and the Indiana State Medical Associntion shall appreciate receiving information regarding their whereabouts, rank and date of entry.—Editor's Note.)

Name	*Home Address*
Capt. Walter C. Anderson	Terre Haute
First Lt. Howard W. Beaver	Indianapolis
First Lt. Mier Bizer	Jeffersonville
Capt. Donald W. Brodie	Indianapolis
Capt. G. T. Bowers	Fort Wayne
Capt. Joseph A. Carbone	Gary
Earl P. Cripe	Redkey
First Lt. Alfred J. Dainko	Whiting
A. H. Duemling	Fort Wayne
Capt. Gordon G. Feldman	Gary
First Lt. Elvin L. Fitzsimmons	Evansville
J. R. Fouts	Charlestown
First Lt. Frederick B. Gardner	Indianapolis
Capt. Robert A. Hedgeoek	Frankfort
First Lt. Eugene J. Hildebrand	Muncie
F. D. Kenney	Hammond
First Lt. Knight Kissinger	Angola
Capt. Joseph E. Kopeha	Whiting
First Lt. Franeis P. LaFata	Gary
Capt. Robert M. LaSalle	Wabash
First Lt. George Lenk	Fort Wayne
Capt. George A. May	Madison

Name	*Home Address*
Capt. Donald H. McKeeman	Fort Wayne
First Lt. Edward G. McArdle	Fort Wayne
Capt. Walter W. Meade	Bicknell
Capt. William K. Nance	Vincennes
Capt. Paul L. Nelson	Anderson
Capt. Solomon V. Panares	Hammond
First Lt. Robert E. Peck	Logansport
Capt. Robert H. Pierson	Spencer
First Lt. Lester L. Renbarger	Marion
First Lt. Lloyd E. Rosenbaum	Anderson
First Lt. Carl Ruff	LaPorte
Capt. Charles F. Seaman	Indianapolis
First Lt. Houston W. Shaw	Jeffersonville
First Lt. Joseph M. Siekierski	Gary
Capt. J. Lawrence Sims	Indianapolis
First Lt. Morris C. Snyder	Indianapolis
Capt. William C. Vance	Richmond
Capt. Walter H. Vance	Fort Wayne
First Lt. Donald E. Vivian	Indianapolis
First Lt. Kemper N. Venis	Muncie
First Lt. John D. Winebrenner	Princeton
Capt. James R. Woods	Greenfield
First Lt. Harold Zimmerman	Evansville
First Lt. Ralph E. Zwickel	Newburgh

News Notes

Dr. Charles Chapin, of Logansport, has been appointed assistant superintendent of the Logansport State Hospital.

Dr. John S. Hash, of Williamsport, has moved to Indianapolis, where he will take an advanced course in surgery.

Dr. Thomas Haller, formerly of Evanston, Illinois, has moved to Williamsport, where he began his duties as surgeon and resident physician at the Maris Hospital.

Dr. Arthur W. Hull, of Elkhart, has been appointed chief of Emergency Medical Services for Elkhart County.

Dr. H. B. Gable, of Monticello, attended the annual meeting of the surgeons of the Pennsylvania Railway Company, held at Pittsburgh, Pennsylvania.

Dr. Harold Hill, of Richmond, has been appointed school physician for the Richmond schools.

Dr. Paul W. Sparks, of Winchester, has been awarded a Fellowship in Surgery at the Lahey Clinic, at Boston, Massachusetts.

The Indiana State Medical Association wishes to thank Robert Yoho, E. A. Robinson and Bird Baldwin, who manned the lanterns at our scientific sessions at French Lick, also Mr. Frank Stafford, director of Health and Physical Education, Indiana State Board of Health, who supervised the lantern demonstrations.

Dr. Warren S. Tucker, of Indianapolis, has received the 1942 Scholarship of the Indiana Tuberculosis Association. This scholarship entitles him to study under the leading tuberculosis specialists in the country. It is awarded each year to a young physician wishing to specialize in tuberculosis.

Dr. C. E. Boyd, of West Baden Springs, has been appointed coroner of Orange County.

Dr. R. E. Wynne, of Bedford, has been named coroner of Lawrence County.

NOTICE

The Third Annual Medical Meeting of the National Foundation for Infantile Paralysis will be held in New York City on December 3-4, inclusive.

Because of vacancies caused by doctors enlisting in the armed forces, Dr. Frank D. Martin, of Bedford, was elected secretary, and Dr. Claude Dollens, of Oolitic, was elected vice-president of the Lawrence County Medical Society.

We wish to call attention to the second edition of *Parergon*—from the Greek word meaning "work by the side of work"—published by Mead Johnson and Company. Physicians who enjoy the hobby of artistic craftsmanship will be interested in a copy of this edition.

The following paragraph is quoted from a letter received from James R. Newkirk, president of the Indiana Bar Association. This was read before the House of Delegates and was one of the first things to receive applause.

> "If individual rights are to be preserved in this country we must have a strong, courageous and independent judiciary, and this is most likely to exist when the legal profession is strong and has the confidence and influence it ought to have. As a rule, the lawyers are always ready to defend the doctor, the press and any individual when his freedom of action under the constitution is being challenged. You can rest assured that the State Bar Association is not only willing but very anxious to cooperate with your Association to the end that we may preserve our professional honor and integrity."

MICROSCOPES NEEDED

Colonel G. R. Owsley, head of the Billings Hospital at Fort Harrison, requested that it be announced at the French Lick meeting that there is a serious shortage of microscopes for Army use and that there is an immediate market for them—to be sold to the Government. Anyone having an available microscope that they can spare would be doing a worth-while service in turning it over to the Army, through Colonel Owsley.

RED CROSS ANNOUNCES EXPANSION OF BLOOD PROCUREMENT PROJECT

Expansion of the Red Cross blood procurement project from an original 900,000 donors during the current fiscal year to a minimum of 2,500,000 has been requested by the Surgeons General of the Army and Navy, the Red Cross has announced. Blood collected in this project is processed for use in transfusions by the armed forces.

This almost three-fold increase will require approximately 50,000 volunteer donations a week. The 18 blood donor centers operated by Red Cross chapters in the more populous areas of the country are rapidly completing plans to increase their quotas, and a few additional centers will be opened to handle this augmented number of donations. In addition to dried plasma, blood collected is to be processed into human serum albumin, also for use in transfusions. The Navy is particularly interested in this serum because it requires less storage space than plasma.

CONSERVATION OF VISION BREAKFAST

The Conservation of Vision breakfast was very well attended, about 28 men being present. The success of the program had been assured by the presence of Dr. Harry S. Gradle, of Chicago, as our guest speaker. Dr. Gradle discussed thoroughly the problems of conservation of vision, prevention of blindness, and rehabilitation of the blind. His comments were based upon many years of experience, with the result that every oculist in attendance was enthusiastic about the wealth of information which he had received. Dr. Gradle announced that Dr. J. V. Cassady, of South Bend, who served as the first chairman of our state committee, had been appointed permanent secretary of the National Conservation of Vision Committee, sponsored by the American Medical Association.

Dr. C. W. Rutherford reported the latest statistics on the blind pension and eye treatment program of the State Department of Public Welfare.

It was the concensus of opinion of all those who were present that the breakfast meeting on Conservation of Vision is one of the most valuable features of our state convention, and that it should be continued at future sessions of the Indiana State Medical Association.

TURNER ADDRESSES TUBERCULOSIS MEETING

Dr. Paul A. Turner, superintendent of the Louisville State Tuberculosis Sanatorium, was the principal speaker at the luncheon meeting of the Anti-Tuberculosis Committee of the Indiana State Medical Association held in the Bamboo Room at the French Lick Springs Hotel Tuesday, September 29, 1942. Dr. Turner spoke on the "Pros and Cons of Pneumotherapy Treatment." Thirty persons attended the meeting including members of the County Tuberculosis Committees.

The following resolution was adopted and passed by the House of Delegates of the State Medical Association:

> "The law passed at the 1941 session of the legislature, requiring the examination for tuberculosis of all teachers, janitors and school bus drivers, is an advance step in the control of tuberculosis. Much has been accomplished through the administration of the law in case finding, in preventing the spread of tuberculosis and from the educational point of view. However, there is evidence that in some instances, school boards and trustees seeking economy rather than effective service have not complied with the spirit of the law in type of examination required. In some few instances, also, a direct violation of the act was encountered, therefore be it
>
> "*Resolved*, By the Anti-Tuberculosis Committee of the Indiana State Medical Association that suitable action be taken to strengthen the act by making its requirements more definite and by the inclusion in the act of a provision for the establishment of a board of review to which all x-ray films will be sent for determination, and be it further
>
> "*Resolved*, That it is the sense of the committee that a director of tuberculosis in the State Board of Health be appointed, whose duties shall include the administration of the teacher examination act, and consideration of the many increasing tuberculosis problems due to the present war situation."

The committee also approved a plan for x-raying the chest of restaurant workers, somewhat similar to the teachers' examination law.

Major Lee of the Army gave a report on the examination of draftees. Major Lee has cooperated with the Tuberculosis Committee in furthering the control of tuberculosis. He agreed to send the x-ray films of draft examinees to the local health officer for follow-up and for the information of the family physician. The Army rejects examinees with extensive calcified lung lesions and active or arrested parenchymal lesions. It was agreed that the x-ray examination of all draftees is one of the biggest steps ever made in the control of tuberculosis.

Mr. Murray Auerbach, secretary of the State Tuberculosis Association, reported on the school

employee examination law and made recommendations which were included in the resolution adopted by the committee.

A chest program which included an x-ray conference followed the committee meeting.

MEDICAL GAS WARFARE SCHOOL

At the request of the Medical Division of the Office of Civilian Defense, the Indiana University School of Medicine held a two-day symposium on "The Medical Aspects of Chemical Warfare," October 23 and 24, 1942.

While there are reasons to doubt that poison gases will be used in the event of civilian bombings, it is known that all of the belligerants have large stocks of these poisons and that the use of gas by any nation will probably be the signal for its general use. Moreover, the gases from high explosives and incendiaries and broken gas mains are toxic and their presence may cause a panic in the fear that more deadly poisons have been released in the attack. Some physicians in each community should, therefore, be prepared to allay such fears, if groundless, and to handle gas casualties if they occur. This course also had a peace-time value because many of the fundamental principles of chemical warfare are directly applicable to the growing field of industrial poisons.

The real gases, and not synthetic substitutes, were used in this course. The use of gas masks was shown, and their protection against tear gas demonstrated by personal experience. Animal tests illustrated the pathology of certain gas injuries. The Chemical Warfare Unit from Purdue University staged field demonstrations of the dispersal of gases by means of explosives and the decontamination of gassed areas.

Subjects covered by lectures and demonstrations were as follows:

"Physical and Chemical Properties of Chemical Warfare Agents."—R. N. Harger, Ph.D., professor of Biochemistry and Pharmacology.

"Detection and Preventive Measures."—Louis M. Spolyar, M.D., Director, Industrial Hygiene Division, Indiana State Board of Health.

"General Toxicology of Warfare Poisons."—R. N. Harger, Ph.D.

"Clinical Description of Gas Warfare Injuries."—Louis M. Spolyar, M.D.

"Pathological Changes Caused by War Poisons: Skin; Respiratory Tract; Eye; Other Parts of Body."—Frank Forry, M.D., Professor of Pathology.

"Physiological Aspects of Chemical Warfare Casualties; Respiratory and Lung Injuries; Impairment of Body Efficiency While Using Gas Masks and Protective Clothing."—K. G. Wakim, M.D., Associate Professor of Physiology.

"Treatment of Injuries from Poison Gas."—H. M. Trusler, M.D., Associate Professor of Surgery.

"Eye Injuries from Poison Gases, Liquids and Solids."

"Burns."—H. M. Trusler, M.D.

"Why We Might Be Gassed and What Has Been Done About It."—Lt. Col. William S. Keller, M. D., Senior Surgeon, United States Public Health Reserve, and Medical Director, 5th Region, O.C.D., Cleveland, Ohio.

"Demonstration of Gas Masks and Dispersion of Warfare Gases."—Colonel Johnson, C.W.S., Civilian Defense School, Purdue University.

Society Reports

INDIANA STATE MEDICAL ASSOCIATION

THE COUNCIL

First Meeting

(French Lick Session, September 29, 1942)

The Council of the Indiana State Medical Association convened in the Blue Room of the French Lick Springs Hotel, French Lick, at 12:45 p. m., Tuesday, September 29, 1942, with Dr. Floyd T. Romberger of Lafayette, chairman, presiding. Roll call showed the following present:

Councilors:

1st	District	I. C. Barclay, Evansville
2nd	"	H. C. Wadsworth, Washington
4th	"	J. C. Elliott, Guilford
5th	"	A. M. Mitchell, Terre Haute (representing O. O. Alexander)
6th	"	Samuel Kennedy, Shelbyville
7th	"	C. J. Clark, Indianapolis
8th	"	E. H. Clauser, Muncie
9th	"	Floyd T. Romberger, Lafayette
10th	"	N. K. Forster, Hammond
12th	"	H. L. Murdock, Fort Wayne
13th	"	Alfred Ellison, South Bend

Officers:

President—M. A. Austin, Anderson
Treasurer—A. F. Weyerbacher, Indianapolis
Editor of THE JOURNAL—E. M. Shanklin, Hammond.

Executive Committee:

C. A. Nafe, Indianapolis, chairman.
Albert Stump, Indianapolis, attorney for association.
T. A. Hendricks, executive secretary.

Guests:

Will A. Thompson, Liberty, chairman, Committee on Prevention of Traffic Accidents.
Larue D. Carter, Indianapolis, chairman, Committee on Mental Health.
Rollen Waterson, Gary, executive secretary, Lake County Medical Society.

The secretary read the following letter, addressed to the chairman of the Council, from Dr. O. O. Alexander, Terre Haute:

"I find it again impossible for me to attend the annual meeting of the Association to be held at French Lick and the meetings of the Council during that time. I am requesting that the Council permit Dr. A. M. Mitchell to represent the Fifth District at these meetings in my absence and to stand as the councilor of the Fifth

District until such time as he can be duly elected to take my place permanently.

"During the sixteen years that I have served as a member of the Council, eight of these as chairman and member of the Executive Committee, I have enjoyed immensely the association with the members of the Council; however, the duties entailed have always been to me work, real work.

"With best regard to all of my former colleagues in the Council and best wishes for a successful meeting at French Lick, I am

Sincerely yours,

O. O. Alexander, M.D."

THE CHAIRMAN: The chair will rule that Dr. Mitchell is the representative of the district mentioned, ex-officio as it were, without the privilege of vote in case a vote is taken by the Council.

Upon the motion of Dr. Forster, seconded by Dr. Clark, the chair appointed a committee consisting of Dr. Shanklin, Dr. Forster and the executive secretary to write a letter to Dr. Alexander, expressing the thanks and appreciation of the Council of the Indiana State Medical Association for the long and beneficent service rendered by Dr. Alexander in behalf of the association.

The secretary reported that Dr. C. E. Boyd of West Baden was acting as Convention Arrangements Chairman in place of Dr. George Dillinger of French Lick, as Dr. Dillinger had been called into the Army about ten days ago. Dr. Clark moved, and it was taken by consent, that the executive secretary write a letter on behalf of the Council thanking Dr. Dillinger for his efforts during the last several months in making arrangements for this annual session.

Upon the motion of Dr. Clark, seconded by Dr. Forster, the minutes of the midwinter meeting of the Council, held in Indianapolis on January 11, 1942, were accepted as published in the February, 1942, issue of THE JOURNAL.

Councilor reports were accepted as printed in the September, 1942, issue of THE JOURNAL.

Unfinished Business

(1) *The Lashley Case.* Dr. Barclay made the motion that this matter not be brought up at any subsequent meeting unless Dr. Lashley should make a further appeal. This motion was seconded by Dr. Ellison, and carried.

(2) *Romberger Plan for Physicians' Universal Military Service.* This plan was handed to a committee headed by Dr. Clark at the midwinter meeting of the Council. Dr. Clark reported that he had taken this matter up with the Surgeon General's Office when he was in Washington and that the members of his committee would have a meeting before the next meeting of the Council, at which time they would make a report.

New Business

(1) *Auditing Committee Report.* On motion of Dr. Murdock, seconded by Dr. Kennedy, the report of the Auditing Committee, as printed in the Handbook, was accepted.

(2) *Annual Meeting Resolution.*

(a.) Upon the motion of Dr. Forster, seconded by Dr. Clark, the Council approved the following resolution, which was introduced by Dr. Shanklin, and authorized the chairman of the Council to present it to the House of Delegates:

"RESOLVED, That, for the duration of the present National Emergency, the annual meetings of the Indiana State Medical Association shall be skeletonized in such degree as may be decided by the Council of the Indiana State Medical Association at its coming midwinter meeting;

"That arrangements be made for the session of the House of Delegates and of the Council; and

"That all other present activities of the Indiana State Medical Association shall be continued as usual, subject to such changes as may arise from emergencies."

Dr. Shanklin called the attention of the Council to the fact that "if this program goes through it will place a very marked additional burden on the editorial staff of THE JOURNAL. In the event we do not have an annual meeting the work of the editorial staff will be increased. . . . If scientific sessions are taboo for the period, we are going to need a lot of JOURNAL material. We are going to have to ask the members of the Council first to assist us in the selection of material for THE JOURNAL. If, at your district meetings, there are papers of just a little bit more than ordinary merit, we would like to know about them. We are going to have to ask the county medical society secretaries to be more particular in sending into headquarters office complete reports on papers read."

(b.) *Speakers for county medical society meetings.*

The matter of procuring speakers for county medical society meetings was discussed by Drs. Mitchell, Murdock, Baker and Clark, following which Dr. Clark proposed that the Committee on Medical Education and Hospitals, of which Dr. Baker is chairman, supply to the Bureau of Publicity the names of speakers. . . . The request would come to the Bureau of Publicity. Dr. Baker's committee would act in cooperation with the Bureau of Publicity to supply these speakers. The members of the Bureau from Indianapolis do not have state-wide acquaintance. Dr. Baker's committee is to cooperate with the Bureau of Publicity and this matter should be given due publicity in THE JOURNAL.

DR. HERMAN BAKER: In most of the states that are working along this line they have either part-time or full-time individuals who personally go around and help set up programs, and help supply

speakers for these programs. The function of this continuous education is to go out in the state and set it up. It cannot be set up from headquarters office. It cannot be worked until a personality goes out and helps the county societies.

(3) *Planned Parenthood Resolution.* The secretary read the following resolution for Dr. H. F. Nolting of Indianapolis, chairman of the Advisory Committee to the Bureau of Maternal and Child Health of the Indiana State Board of Health, as Dr. Nolting was unable to attend the Council meeting:

"WHEREAS, The American Medical Association has recommended medical control of the practice of contraception where scientifically indicated, and

"WHEREAS, There is much confusion in the minds of the laity who depend on the medical profession for leadership and advice along lines of birth control and planned parenthood; therefore be it

"*Resolved*, That the Indiana State Medical Association give its approval of and endorse the recommendations of the American Medical Association, with the understanding that such contraception information be given only to those patients in whom the proper indications present themselves, so that the well-being of prospective and potential mothers may be better safeguarded."

(This resolution was introduced at the request of Dr. J. H. J. Upham, former president of the American Medical Association and Dean Emeritus of Ohio State University Medical School. Dr. Upham is chairman of the Board of Directors of the Planned Parenthood Federation of America, Inc.)

The Council took no action on this resolution.

(4) *Care of Wives and Children of Service Men.* Obstetrical care of wives and pediatric care of children of service men. Dr. Baker and Dr. Jewett of the State Board of Health discussed this matter, which the Council considered merely informative.

(5) *Journal Staff Elections.*

(a.) On motion of Dr. Forster, seconded by Dr. Clark, Dr. E. M. Shanklin was elected Editor of THE JOURNAL for 1943.

(b.) The following members were elected to serve on the Editorial Board for three years:

Dr. Ernest Rupel, Indianapolis, to succeed Dr. J. F. Balch, Indianapolis.

Dr. Harry W. Garton, Fort Wayne, to succeed Dr. E. L. VanBuskirk, Lafayette.

(6) *Executive Committee Report.* Dr. C. A. Nafe, chairman of the Executive Committee, made a brief report of the activities of the Executive Committee since the midwinter meeting of the Council.

(7) *Traffic Accident Resolution.* Dr. Will A. Thompson, chairman of the Committee on Prevention of Traffic Accidents, presented the following resolution which, on motion of Dr. Clark, seconded by Dr. Kennedy, was referred to the House of Delegates:

"WHEREAS, A recent tragic traffic accident involving an alleged epileptic driver has focused public attention on this threat against the public welfare, and

"WHEREAS, The licensing of a driver presupposes that he is physically capable of driving an automobile, and

"WHEREAS, It is in the interest of the public safety to take from Indiana streets and highways drivers afflicted with seizures of unconsciousness, therefore be it

"*Resolved*, By the Indiana State Medical Association that an Act be prepared for presentation to the 1943 Indiana General Assembly requiring reporting to the Indiana State Board of Health, by name, of persons under the care of physicians and institutions, private or public, for diseases or conditions resulting in periodic or occasional seizures of unconsciousness, and be it further

"*Resolved*, That the Indiana State Board of Health hold this information confidential, except that it be empowered to furnish such information to the Department of Public Safety for the proper control of such persons as drivers, and except that it may be furnished by order of the court."

There being no further business, the Council then went into executive session.

THOMAS A. HENDRICKS,
Executive Secretary.

THE COUNCIL

Second Meeting

(French Lick Session, October 1, 1942)

The second meeting of the Council was called to order at 9:15 a. m. Thursday, October 1, 1942, in the West Dining Room of the French Lick Springs Hotel, immediately upon adjournment of the final meeting of the House of Delegates, with Dr. F. T. Romberger, the chairman, presiding.

The minutes of the previous meeting were not read.

Roll call showed the following members present:

Councilors:

2nd	District	H. C. Wadsworth, Washington
4th	"	J. C. Elliott, Guilford
5th	"	A. M. Mitchell, Terre Haute
6th	"	Samuel Kennedy, Shelbyville
7th	"	C. J. Clark, Indianapolis
8th	"	E. H. Clauser, Muncie
9th	"	Floyd T. Romberger, Lafayette
10th	"	N. K. Forster, Hammond
11th	"	Ira Perry, North Manchester
12th	"	H. L. Murdock, Fort Wayne
13th	"	Alfred Ellison, South Bend

Officers:

President—M. A. Austin, Anderson.
President-elect—C. H. McCaskey, Indianapolis.
Treasurer—A. F. Weyerbacher, Indianapolis.
Editor of THE JOURNAL—E. M. Shanklin, Hammond.

Executive Committee:

C. A. Nafe, Indianapolis, chairman.
E. O. Asher, New Augusta.
Albert Stump, Indianapolis, attorney for association.
T. A. Hendricks, executive secretary.

(1) *Midwinter Council Meeting Date.* On motion of Dr. Forster, duly seconded, the second Sunday in January, 1943, (January 10) was set as the date for the midwinter meeting of the Council.

(2) *Military Hospitals to Receive* JOURNAL. Dr. Shanklin read a letter from Major George Dillinger in which he asked that all named hospitals be sent a copy of THE JOURNAL of the Indiana State Medical Association. Dr. Forster moved that all named hospitals be placed on THE JOURNAL mailing list. This motion was seconded by Dr. Wadsworth, and carried.

(3) *Report on Physicans' Universal Military Service Plan.* The Chair ruled that Dr. Clark's report on Physicians' Universal Military Service should be given at the midwinter meeting of the Council.

(4) *Transient Physicians.* Following discussion of the subject of transient physicians, Dr. Forster made the motion that problems of this character be referred to the particular councilor districts concerned. This motion was seconded by Dr. Clark, and carried.

No further business appearing, the Council adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

INDIANA STATE MEDICAL ASSOCIATION

HOUSE OF DELEGATES

(French Lick Session, 1942)

First Meeting

The first meeting of the House of Delegates of the 1942 session convened in the North Convention Hall, French Lick Springs Hotel, French Lick, at four-twenty p. m., Tuesday, September 29th, the president, Dr. M. A. Austin, of Anderson, presiding.

Dr. W. F. Carver, chairman of the Committee on Credentials, announced a quorum present.

Attendance slips, which are now substituted for roll call, showed the following members present:

County	*Delegates*
Allen	M. B. Catlett, Fort Wayne
	M. R. Lohman, Fort Wayne
	W. C. Wright, Fort Wayne
Bartholomew	B. W. Marshall, Nashville
Benton	V. L. Turley, Fowler
Boone	Ralph Harvey, Whitestown
Cass	B. W. Egan, Logansport
Clark	E. P. Buckley, Jeffersonville
Clay	J. F. Maurer, Brazil
Daviess-Martin	Karl Helm, Shoals
Dearborn-Ohio	O. H. Stewart, Aurora
Decatur	I. M. Sanders, Greensburg
DeKalb	Charles I. Weirich, Butler
	W. W. Swarts, Auburn (Alt.)
Delaware-Blackford	Lall G. Montgomery, Muncie
Dubois	Paul J. Blessinger, Jasper
Elkhart	A. C. Yoder, Goshen
Floyd	H. E. Voyles, New Albany
Fulton	A. E. Stinson, Rochester
Grant	Russell W. Lavengood, Marion
Greene	K. L. Hull, Bloomfield
Hamilton	C. H. Tomlinson, Cicero
Hancock	Jesse E. Ferrell, Fortville
Hendricks	C. B. Thomas, Plainfield
Henry	W. U. Kennedy, New Castle
Huntington	C. S. Black, Warren
Jackson	G. H. Kamman, Seymour
Jay	George V. Cring, Portland
Jefferson	Nicholas A. Kremer, Madison
Johnson	Oran A. Province, Franklin
Lake	W. H. Howard, Hammond
	C. M. Jones, Whiting
	P. Q. Row, Hammond
Marion	Ben B. Moore, Indianapolis
	O. H. Bakemeier, Indianapolis
	John H. Warvel, Indianapolis
	J. O. Ritchey, Indianapolis
	Marlow W. Manion, Indianapolis
	E. F. Boggs, Indianapolis
	Rollin H. Moser, Indianapolis
	Paul Merrell, Indianapolis
Marshall	Harry Knott, Plymouth
Miami	Donald W. Ferrara, Peru
Monroe	H. S. Hepner, Bloomington
Montgomery	T. Z. Ball, Crawfordsville
Morgan	H. H. Dutton, Martinsville
Noble	W. F. Carver, Albion
Pike	L. R. Miller, Winslow
Porter	W. C. Butman, Hebron
Scott	Floyd S. Napper, Scottsburg
Shelby	W. D. Inlow, Shelbyville
Spencer	John H. Barrow, Dale
Sullivan	J. R. Crowder, Sullivan
Tippecanoe	Earl VanReed, Lafayette
	Gordon A. Thomas, Lafayette
Tipton	S. M. Cotton, Goldsmith
Vanderburgh	Minor Miller, Evansville
Wabash	O. G. Brubaker, North Manchester
Washington	Claude B. Paynter, Salem
Wayne-Union	Harry P. Ross, Richmond
	Will Thompson, Liberty
White	Jesse P. Galbreth, Burnettsville
Whitley	Paul A. Garber, South Whitley

Councilors	
First District	I. C. Barclay, Evansville
Second District	H. C. Wadsworth, Washington
Sixth District	Samuel Kennedy, Shelbyville
Seventh District	C. J. Clark, Indianapolis
Eighth District	E. H. Clauser, Muncie
Ninth District	F. T. Romberger, Lafayette
Tenth District	N. K. Forster, Hammond
Eleventh District	Ira Perry, North Manchester
Twelfth District	H. L. Murdock, Fort Wayne
Thirteenth District	Alfred Ellison, South Bend

Past Presidents

W. R. Davidson, Evansville
E. M. Shanklin, Hammond
Charles N. Combs, Terre Haute
George Daniels, Marion

Past President—Continued

F. S. Crockett, Lafayette
E. E. Padgett, Indianapolis
Herman M. Baker, Evansville
A. M. Mitchell, Terre Haute

Officers

M. A. Austin, Anderson, President
C. H. McCaskey, Indianapolis, President-elect
A. F. Weyerbacher, Indianapolis, Treasurer
Cleon A. Nafe, Indianapolis, Chairman, Executive Committee
E. O. Asher, New Augusta, Executive Committeeman
Albert Stump, Indianapolis, Attorney
Thomas A. Hendricks, Indianapolis, Executive Secretary

Delegates to A. M. A.

D. F. Cameron, Fort Wayne
H. G. Hamer, Indianapolis

THE PRESIDENT: According to Chapter IV, Section 3, of the By-Laws, twenty delegates constitute a quorum. The House of Delegates, therefore, is declared open and ready for the transaction of business.

The By-Laws may be amended at any annual session by a majority vote of all delegates present at that session, after the amendment has laid on the table for one day. The House of Delegates may amend any article of the Constitution by a two-thirds vote of all delegates present at any annual session, provided such amendment shall have been presented in open meeting at the previous annual session and that it shall have been published twice during the year in THE JOURNAL of the Association.

I also wish to say that any delegate who desires to speak must rise and give his name and the county he represents.

According to our custom we will now rise and stand in silence for one minute in memory of those who were members of the House of Delegates or served the state association in an official capacity and who have died since the 1941 annual session. The list is as follows:

J. D. BYRNS, Mitchell. Delegate from Lawrence County, 1934.

I. M. CASEBEER, Clinton. Member of Committee on Veterans' Hospitalization, 1933 through 1936.

J. S. LEFFEL, Connersville. Chairman, Medical Relief Committee, 1940, 1941 and 1942.

ADAH MCMAHON, Lafayette. Member of Committee on Arrangements, 1913-1914, and member of Committee on Health, Public Instruction and Medical Publicity, 1916.

C. E. RAGAN, Terre Haute. Member of Committee on Anesthesia, 1926.

M. J. SPENCER, Indianapolis. Delegate from Marion County, 1938 through 1941.

J. D. STURDEVANT, Noblesville. Secretary, Hamilton County Medical Society 1908; member of Committee on Scientific Exhibit 1918; delegate from Hamilton County 1935.

Unfortunately, we have lost two men who were with the armed forces:

LIEUTENANT JOHN FRANCIS KERR, JR., Indianapolis, who died at El Paso, Texas, August eighteenth.

LIEUTENANT EMIL NICHOLAS KVETON, Fort Wayne, who was killed in action at sea, August ninth.

(The members of the House of Delegates stood in silence for one minute in memory of these departed members.)

(On motion of Dr. George Daniels, seconded by Dr. W. U. Kennedy, the reading of the minutes of previous meetings was dispensed with and the minutes as printed in THE JOURNAL of November, 1941, were accepted.)

THE PRESIDENT: According to Article V of the Constitution, the A. M. A. delegates have the right to sit in the House of Delegates and have the privilege of the floor, but have no right to vote. This also includes alternates. All members of the Association who desire to sit in on this meeting to hear the deliberations of the House are welcome.

We now come to the appointment of reference committees. These must not be confused with standing committees. This is the list. As your names are called, will you please stand?

REFERENCE COMMITTEES

1942

1. Sections and Section Work:

Chairman, B. W. Egan, Logansport (Cass)
G. H. Kamman, Seymour (Jackson)
I. M. Sanders, Greensburg (Decatur)
S. M. Cotton, Goldsmith (Tipton)
O. H. Stewart, Aurora (Dearborn)

2. Rules and Order of Business:

Chairman, J. F. Maurer, Brazil (Clay)
P. J. Blessinger, Jasper (Dubois)
Carl Clark, Oakland City (Gibson)
C. H. Tomlinson, Cicero (Hamilton)
W. H. Morrison, Howe (LaGrange)

3. Medical Education and Hospitals:

Chairman, Oran Province, Franklin (Johnson)
John H. Warvel, Indianapolis (Marion)
N. A. Kremer, Madison (Jefferson)
Erwin Blackburn, South Bend (St. Joseph)
T. Z. Ball, Crawfordsville (Montgomery)

4. Public Policy and Legislation:

Chairman, Ben B. Moore, Indianapolis (Marion)
S. C. Darroch, Cayuga (Vermillion)
J. F. Gillespie, Greencastle (Putnam)
Will Thompson, Liberty (Union)
V. L. Turley, Fowler (Benton)

5. Publicity:

Chairman, W. U. Kennedy, New Castle (Henry)
Clay A. Ball, Muncie (Delaware)
A. E. Stinson, Rochester (Fulton)
O. G. Brubaker, North Manchester (Wabash)
Earl VanReed, Lafayette (Tippecanoe)

6. Hygiene and Public Health:

Chairman, C. S. Black, Warren (Huntington)
Harry P. Ross, Richmond (Wayne)
W. H. Howard, Hammond (Lake)
M. B. Catlett, Ft. Wayne (Allen)
H. H. Dutton, Martinsville (Morgan)

7. Amendments to Constitution and By-Laws:

Chairman, Claude B. Paynter, Salem (Washington)
W. M. Miley, Anderson (Madison)
J. N. Kelly, LaPorte (LaPorte)
J. R. Crowder, Sullivan (Sullivan)
W. E. Jenkinson, Mt. Vernon (Posey)

8. Reports of Officers:

Chairman, J. O. Ritchey, Indianapolis (Marion)
W. C. Wright, Fort Wayne (Allen)
O. T. Scamahorn, Pittsboro (Hendricks)
Robert Acre, Evansville (Vanderburgh)
J. S. Robison, Winchester (Randolph)

9. Committee on Credentials:

Chairman, W. F. Carver, Albion (Noble)
Jesse E. Ferrell, Fortville (Hancock)
William E. Amy, Corydon (Harrison)
Gordon A. Thomas, Lafayette (Tippecanoe)
M. R. Lohman, Fort Wayne (Allen)

10. Committee on Miscellaneous Business:

Chairman, George Daniels, Marion (Grant)
Harry Knott, Plymouth (Marshall)
T. C. Glenn, Tell City, (Perry)
H. S. Hepner, Bloomington (Monroe)
L. W. Hisrich, Batesville (Ripley)

REPORTS OF OFFICERS

THE PRESIDENT: Most of these reports, except for the address from the chair and the address of the President-elect to the House of Delegates, are printed in the September issue of THE JOURNAL and in the Handbook of the House of Delegates, but each officer and committee chairman will receive five minutes to make any additions to or explanation of the reports already published.

ADDRESS OF THE PRESIDENT

DR. M. A. AUSTIN:
Members of the House of Delegates of the Indiana State Medical Association

Gentlemen:

The honor of presiding over this body is one that I deem the highest the profession can bestow on any of its members. In accepting such an honor, however, the recipient must expect to give most generously of his time and his talents, and I hope it can be said of me when I shall have turned the gavel over to Doctor McCaskey that I have not been found wanting. Attending the monthly meetings of the Executive Committee for the past six years, as chairman of the Council, president-elect and president, and the meetings of the Council for twenty years, has given me an unusual opportunity to evaluate the assistance we have had from many of our most faithful members. I had hoped to emphasize the need of having more younger men in our deliberations, but the war has now taken so many away from the state that it throws a greater responsibility on those of us who are left. Far too many of our standbys in times past have been called to their reward in the last few years. Too many of them have been many years my junior, and, in consequence, I have tried to emphasize the PHYSICIAN'S PERSONAL NEEDS FOR REST AND DIVERSION in my page of THE JOURNAL rather than the overworked themes connected with the welfare of the public.

I cannot mention all of my friends to whom I would like to pay tribute, but in mentioning Doctor Leffel, especially, his untimely death at the age of fifty-four, should be a warning to all of us that we can too often give too much of ourselves. McKain of Columbus, McFadden and Keeney of Shelbyville, left vacancies in friendships and service we cannot replace. And over the state have been many others whose loss to their communities will take years to permit their substitutes to fill the vacancy their deaths have made.

When you consider that each meeting of the Executive Committee or the Council requires from four to six or more hours' time, and that as many as sixty-five different matters have been considered in some of our meetings, you will have some idea as to our responsibilities. Many things fortunately are informatory, as passed along to us by the various bureaus of the American Medical Association, and chairmen of the various committees in our own state association. Many things concerning local problems come from both physicians and laymen to the state office. Many plans have to be given consideration far in advance of their probable needs. I could not do less than commend the work of our executive secretary in his farsightedness to such a degree that Indiana has been first and outstanding in its preparedness program, in civilian defense, in procurement and assignment, and in meeting the problems of public welfare. But don't forget that you have much to be thankful for in the work of the Legislative Committee. And I want to remind you that you must give this committee far more support than you have ever done, for subversive combinations are now at work that may overthrow all the restrictions we have gained to keep quackery at a minimum. I am not going into detail concerning many other matters which have been given publicity in THE JOURNAL minutes of both the Council and the Executive Committee meetings. Every member should read these minutes and acquaint themselves as to the work done, the jobs that are ahead of us, where and how our money is spent, and make it a personal obligation to share the responsibilities that a few of us have carried for too many years.

This will be referred to the Reference Committee on Reports of Officers, as will also my address which is to be made before the general meeting on Wednesday.

ADDRESS OF THE PRESIDENT-ELECT

DR. C. H. MCCASKEY:
Mr. President, Members of the House of Delegates, Members of the Council, and Members of the Executive Committee:

Practice of Medicine

It is hardly necessary to mention the fact that these are, no doubt, the most perilous times to

which this country has been subjected and the practice of medicine is being materially hampered by the great number of physicians who are required in the Medical Corps of the armed forces. The public, in many communities, is having to curtain its medical care owing to this fact. It may eventually be necessary to transfer physicians from one community to another for the duration. There is little chance that recent graduates will be able to locate in these localities for the reason that all medical students are in the Administrative Medical Corps of the Army and will, upon completion of an internship, if physically fit, automatically be commissioned into the Medical Corps.

Industrial Medicine

The picture of industrial medicine will be changed to a degree. Industrial medicine should be cared for by organized medicine, not by a governmental agency.

Boom Defense Plant Areas

Boom, or defense plant, areas create a situation which must be solved and handled solely by organized medicine, but the manner in which this will be accomplished cannot be set out until a survey of these areas has been made. This is now under way and a report should be in the hands of the Association in the very near future.

Medical Education

Medical education has been urged to speed up its program from a four years course of nine months a year to a three year course of twelve months. The medical schools will have to run the year around with a reduced staff. This has been brought about by the fact that many of the very active and younger members are in service. Our own medical school has met this demand and is now operating at full capacity and in a very efficient manner. No doubt it will be necessary to increase the budget for the medical school on account of the speeded up program, and if this is necessary, I am sure organized medicine will support it 100 per cent.

Induction Age

Another problem which will confront the medical profession and medical educators is the lowering of the induction age to eighteen years. This will entail the problem of the medical student. It will be a part of our program to help find a solution for it.

State Board of Health

The Association has been very fortunate in having the full cooperation of the State Board of Health in all the activities which have concerned both the Association and the Board of Health.

The State Board of Medical Registration and Examination has cooperated 100 per cent and should have the commendation of our organization.

Procurement and Assignment Service

The Procurement and Assignment Service in Indiana, under the direction of its able Chairman, Dr. Charles R. Bird, his committee, and the county committees, has done a most excellent job in keeping our quota for the Medical Corps in this state up to its normal requirements.

This task has been most arduous and it has required stern decisions. From several sources the committee has come in for considerable criticism. Many of these criticisms have been selfish in nature. This committee has been made up of men who could make and stand by their decisions; otherwise the affairs would have been in a state of chaos.

Rehabilitation of the Medical Profession After the War

This committee has done a 100 per cent job up to the present. It will be necessary when this war has ended to rehabilitate the physicians who have been in service as they are mustered out. This committee, or some similar committee, should be planning at the present time just such a program.

The Journal

I wish to commend the Editor and the Editorial Board of THE JOURNAL for their fine effort in keeping THE JOURNAL up to its usual high standard, and in passing I wish to make the suggestion that the news items be enlarged as much as possible. This has been brought to my attention by many of the Medical Corps officers from our state who say that it is practically their only means of getting state medical news.

Executive Secretary and Staff

Our Executive Secretary has divided his time between Indianapolis and Washington during the last year and he should be highly commended for doing such a fine job for the State Association and for the Procurement and Assignment Service. No doubt his handling of both of the activities in such an efficient manner has been due to the untiring efforts of Miss Kribs and her associates.

Legislation

This January we shall again have the legislative problem to meet and as usual there will be many problems with which we shall have to deal, but I feel that with our present Legislative Committee we shall be able to handle such matters as may come up in a very satisfactory manner.

Dr. Austin, Council, and Exeuctive Committee

I want to congratulate Dr. Austin as well as the Council and the Executive Committee for their untiring efforts and for their good work during this year.

In conclusion, I wish to state that Indiana medicine has graciously done its part in the war effort and will, I am sure, see to it that there will be no unnecessary suffering from the lack of medical care to the public.

Referred to Reference Committee on Reports of Officers.

THE PRESIDENT: At this time we are glad to announce that we have two visitors from Michigan, William J. Burns, executive secretary, and Dr. L. Fernald Foster, the secretary of the Michigan State Medical Society. It seems they are known as the "Heavenly Twins," and we will be glad to have Dr. Foster tell us the significance of that.

DR. L. FERNALD FOSTER: Mr. President, and Members of the House of Delegates: It is indeed a privilege for us from Michigan to be here at your annual meeting. We are here in a dual capacity: first, to recuperate from our own annual meeting last week; and second, because we are on the lookout for ideas and we knew of no better place to come because we are familiar with the work of your Executive Secretary, our friend Tom, who ranks tops in that field. For that reason we are here hoping to get some new ideas to carry back to Michigan. Having just come from our own meeting, we realize that the time of the House of Delegates is not to be taken up with inconsequential matters, and therefore I will say, as did the firefly that backed into a lawnmower, "Delighted—no end!"

REPORT OF EXECUTIVE SECRETARY

Referred to Reference Committee on Reports of Officers.

REPORT OF TREASURER

Referred to Reference Committee on Reports of Officers.

REPORT OF CHAIRMAN OF COUNCIL

Referred to Reference Committee on Reports of Officers.

REPORTS OF STANDING AND SPECIAL COMMITTEES

COMMITTEE ON CREDENTIALS

Referred to Reference Committee on Credentials.

EXECUTIVE COMMITTEE

DR. CLEON A. NAFE: In view of the rather lengthy report made by the committee, I want to call your attention particularly to five things to which we have asked that the House of Delegates give special consideration.

First, the question of refund of dues. At the last meeting we passed a resolution that the men in the armed forces should have their dues refunded. The Executive Committee interpreted that as not including those in the Public Health Service or Veterans' Bureau.

Second, we recommend that a resolution be passed that only American citizens be eligible to take examinations given by the State Board of Medical Registration and Examination.

Third, the recommendation of the Tippecanoe County Medical Society that Chapter X, Section 7, of the By-Laws of the Indiana State Medical Association be changed.

Fourth, the Executive Committee has received many complaints in regard to doctors charging excessive mileage fees in going to other communities. We ask that this matter be discussed at this meeting.

Fifth, the question of the employment of substandard physicians in industrial war plants has been brought to our attention. We think that important problem should be discussed here. I would like to say that the work of the Executive Committee has been very pleasant to me, as chairman, and I am sure to the other members of the committee.

THE PRESIDENT: Report of the Executive Committee as printed referred to the Reference Committee on Reports of Officers, with the exception of the question of: (1) Refund of dues of men in Public Health service, referred to the Reference Committee on Miscellaneous Business; (2) question of eligibility to take examinations referred to the Committee on Public Policy and Legislation; (3) the matter of the Tippecanoe County Medical Society, on page 45 of the Handbook, is referred to the Reference Committee on Amendments to Constitution and By-Laws, and (4) the question of mileage fees is referred to the Reference Committee on Hygiene and Public Health.

REPORT OF COMMITTEE ON ARRANGEMENTS

Referred to Reference Committee on Miscellaneous Business.

REPORT OF COMMITTEE ON SCIENTIFIC WORK

Referred to Reference Committee on Sections and Section Work.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Referred to Reference Committee on Public Policy and Legislation.

COMMITTEE ON PUBLICITY

Referred to Reference Committee on Publicity.

COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS

Referred to Reference Committee on Public Policy and Legislation.

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

Referred to Reference Committee on Medical Education and Hospitals.

JOURNAL PUBLICATION COMMITTEE

Referred to Reference Committee on Reports of Officers.

SECRETARIES' CONFERENCE

Referred to Reference Committee on Miscellaneous Business.

PERMANENT STUDY COMMITTEE ON HEALTH INSURANCE

Referred to Reference Committee on Public Policy and Legislation.

NECROLOGY COMMITTEE

Referred to Reference Committee on Miscellaneous Business.

HISTORIAN

Referred to Reference Committee on Publicity.

STUDY OF HIGH SCHOOL ATHLETICS

Referred to Reference Committee on Hygiene and Public Health.

MENTAL HEALTH

Referred to Reference Committee on Hygiene and Public Health.

STATE FAIR

Referred to Reference Committee on Publicity.

PREVENTION OF TRAFFIC ACCIDENTS

Referred to Reference Committee on Public Policy and Legislation.

ADVISORY COMMITTEE TO THE BUREAU OF MATERNAL AND CHILD HEALTH OF THE INDIANA STATE BOARD OF HEALTH

The Chairman, Dr. H. F. Nolting, introduced the following additional resolution, at the request of Dr. J. H. J. Upham, former president of the American Medical Association and chairman of the Board of Directors of the Planned Parenthood Federation of America, Inc. This resolution was read by the Executive Secretary.

"WHEREAS, The American Medical Association has recommended medical control of the practice of contraception where scientifically indicated; and

"WHEREAS, There is much confusion in the minds of the laity who depend on the medical profession for leadership and advice along the lines of birth control and planned parenthood; therefore be it

"*Resolved*, That the Indiana State Medical Association give its approval of and endorse the recommendations of the American Medical Association, with the understanding that such contraception information be given only to those patients in whom the proper indications present themselves, so that the well-being of prospective and potential mothers may be better safeguarded."

Referred to the Reference Committee on Public Policy and Legislation.

DIRECTOR OF RESEARCH ON SICKNESS INSURANCE

Referred to the Reference Committee on Public Policy and Legislation.

LIAISON COMMITTEE OF THE DIVISON OF SERVICES FOR CRIPPLED CHILDREN

Referred to the Reference Committee on Public Policy and Legislation.

AUDITING

Referred to the Council.

CONTROL OF CANCER

Referred to the Reference Committee on Hygiene and Public Health.

VENEREAL DISEASE

Referred to Reference Committee on Hygiene and Public Health.

INDUSTRIAL HEALTH

Referred to the Reference Committee on Hygiene and Public Health.

COMMITTEE TO STUDY CULTISTS AND IRREGULAR PRACTITIONERS

Referred to Reference Committee on Public Policy and Legislation.

COMMITTEE ON INDIANA INTER-PROFESSIONAL HEALTH COUNCIL

Referred to Reference Committee on Miscellaneous Business.

ANTI-TUBERCULOSIS COMMITTEE

Referred to Reference Committee on Hygiene and Public Health.

CONSERVATION OF VISION

Referred to Reference Committee on Hygiene and Public Health.

M-DAY AND VETERANS' AFFAIRS

Referred to Reference Committee on Miscellaneous Business.

PHYSICAL THERAPY

Referred to Reference Committee on Miscellaneous Business.

PNEUMONIA COMMITTEE

Referred to Reference Committee on Hygiene and Public Health.

MEDICAL RELIEF

Referred to Reference Committee on Public Policy and Legislation.

STUDY COMMITTEE ON AID TO NEEDY PHYSICIANS

Referred to Reference Committee on Miscellaneous Business.

CIVILIAN DEFENSE

Referred to Reference Committee on Hygiene and Public Health.

REPORT OF DELEGATES TO A. M. A.

Referred to Reference Committee on Reports of Officers.

READING OF COMMUNICATIONS

The Executive Secretary read the following letter from James R. Newkirk, Esq.:

"Fort Wayne, Indiana
September 26, 1942

Mr. Thomas A. Hendricks,
Executive Secretary,
Indiana Medical Association,
Hume Mansur Building,
Indianapolis, Indiana.
Dear Mr. Hendricks:

"It was very kind of you to invite me to the ninety-third annual meeting of the Association at

the French Lick Springs Hotel on September 29th, 30th and October 1st. I delayed responding to this invitation thinking that it would be possible for me to be present. Unfortunately, matters have developed in our office which will prevent me from attending this meeting and I regret it very much because I feel that our Association has much to learn from your Association.

"We would, of course, like to be organized as you are, but we have been unable to secure the unity among lawyers which exists among the medical profession. Your Association has been referred to many times as an example which the lawyers should endeavor to follow. In these critical times the professions should aid each other and there should be cooperation with business men and labor to the end that the activity of associations like ours will not be too seriously curtailed.

"As a profession we lawyers have been discredited principally because we failed to reform our court procedure so as to speedily and economically dispatch the business which lodged in the courts of our country. As a result, administrative agencies sprung up to displace the courts and the courts have to some extent become subservient to the will of the executive. If individual rights are to be preserved in this country we must have a strong, courageous and independent judiciary and this is most likely to exist when the legal profession is strong and has the confidence and influence it ought to have. As a rule, the lawyers are always ready to defend the doctor, the press and any individual when his freedom of action under the Constitution is being challenged. You can rest assured that the State Bar Association is not only willing, but very anxious to cooperate with your association to the end that we may preserve our professional honor and integrity.

Yours very truly,
(Signed) James R. Newkirk"

The following letter from Dr. Max M. Gitlin, delegate from Wells County:

"Camp Pickett, Va.
September 24, 1942

House of Delegates,
93rd Annual Session,
Indiana State Medical Association,
French Lick, Indiana.

Greetings:

"It is with regret that I am unable to be with you as a delegate from Wells County. Indiana medical men are doing their bit in the services of the Armed Forces of the nations, and I know we can count on Indiana medicine to carry on at the home front.

"I hereby extend my best wishes to all of you, and wish the House of Delegates a successful session. I remain,

Fraternally yours,
(Signed) Max M. Gitlin,
Captain Medical Corps"

THE PRESIDENT: I think this is the proper time to mention the fact that I just had a telephone message from Col. Owsley, of the Billings Hospital, Fort Harrison, asking me to announce their great need for microscopes. He said he is not authorized at this time to say that the Government will buy them, but he is expecting to receive authority to purchase any microscopes that are available for purchase. So if any physician has a microscope that he is not using and that he can spare for service, if he will write Col. G. A. Owsley, Billings Hospital, Fort Harrison, Indiana, stating the price, he may consider the purchase, because they are very short of microscopes.

NEW BUSINESS

DR. HERMAN A. BAKER: Mr. President and gentlemen: Speaking as a member of the State Board of Health, I want to bring to the attention of the House of Delegates one question, of which we have many similar ones, and that is the matter of whether or not it is the opinion of this group that the State Board of Health should enter into the business of providing medical care for the wives and children of the enlisted personnel of the armed forces. Doctor Jewett, chief of the Bureau of Maternal and Child Welfare of the Board, is here and can go into detail with the reference committee on this matter, but the Board would like to have an expression of opinion from this group as to what attitude the organized profession in Indiana is taking in this matter. This is not our only problem, but an answer to this may give the Board a start in deciding what action it should take, and also act as a guide in future action on similar problems.

Referred to the Reference Committee on Hygiene and Public Health, and Dr. Jewett requested to appear before that committee.

DR. F. T. ROMBERGER: As chairman of the Council, and as recommended by the Council, I present the following resolution which was presented to the Council by Dr. Shanklin:

"*RESOLVED*, That for the duration of the present National Emergency the annual meetings of the Indiana State Medical Association shall be skeletonized in such degree as may be decided by the Council of the Indiana State Medical Association at its coming midwinter meeting;

"That arrangements be made for the session of the House of Delegates and of the Council; and

"That all other present activities of the Indiana State Medical Association shall be continued as usual, subject to such changes as may arise from emergencies."

Referred to the Reference Committee on Miscellaneous Business.

No further business appearing, the House of Delegates, on motion of Dr. George Daniels, duly seconded, adjourned until Thursday morning at seven o'clock.

HOUSE OF DELEGATES

(FRENCH LICK SESSION, 1942)

Second Meeting

The second meeting of the House of Delegates was a breakfast meeting in the West Dining Room, French Lick Springs Hotel. It convened at seven-thirty-five a. m., President M. A. Austin presiding.

Dr. W. F. Carver, chairman of the Committee on Credentials, announced seventy-seven delegates present.

Attendance slips showed the following members present:

County	*Delegates*
Allen	M. R. Lohman, Fort Wayne
	W. C. Wright, Fort Wayne
	C. B. Parker, Fort Wayne
Boone	Ralph Harvey, Whitestown
Cass	B. W. Egan, Logansport
Clark	E. P. Buckley, Jeffersonville
Clay	J. F. Maurer, Brazil
Clinton	Claude A. Robison, Frankfort
Daviess-Martin	Karl Helm, Shoals
	C. P. Fox, Washington
Decatur	I. M. Sanders, Greensburg
DeKalb	W. W. Swarts, Auburn
Delaware-Blackford	Clay A. Ball, Muncie
	Lall G. Montgomery, Muncie
DuBois	Paul J. Blessinger, Jasper
Elkhart	A. C. Yoder, Goshen
Floyd	C. E. Briscoe, New Albany
Fulton	A. E. Stinson, Rochester
Hancock	Jesse E. Ferrell, Fortville
Harrison	William E. Amy, Corydon
Henry	W. A. Miller, Hagerstown
Huntington	C. S. Black, Warren
Jefferson	Nicholas A. Kremer, Madison
Johnson	Oran A. Province, Franklin
Lake	W. H. Howard, Hammond
	P. Q. Row, Hammond
LaPorte	G. O. Larson, LaPorte
	R. A. Fargher, LaPorte (Alt.)
Lawrence	Claude Dollens, Oolitic
Marion	Ben B. Moore, Indianapolis
	O. H. Bakemeier, Indianapolis
	John H. Warvel, Indianapolis
	J. O. Ritchey, Indianapolis
	Marlow W. Manion, Indianapolis
	Rollin H. Moser, Indianapolis
	Paul Merrell, Indianapolis
Marshall	Harry Knott, Plymouth
Miami	Donald W. Ferrara, Peru
Monroe	H. S. Hepner, Bloomington
Montgomery	T. Z. Ball, Crawfordsville
Noble	W. F. Carver, Albion
Porter	W. C. Butman, Hebron
Posey	W. E. Jenkinson, Mount Vernon
Rush	C. C. Atkins, Rushville
Scott	Marvin M. McClain, Scottsburg
Shelby	W. D. Inlow, Shelbyville
Sullivan	J. R. Crowder, Sullivan
Tippecanoe	Earl VanReed, Lafayete
	J. C. Burkle, West Lafayette
Vanderburgh	Minor Miller, Evansville
Vigo	M. C. Topping, Terre Haute
	E. O. Nay, Terre Haute
Wabash	O. G. Brubaker, North Manchester
Washington	Claude B. Paynter, Salem
Wayne-Union	Harry P. Ross, Richmond
	Will Thompson, Liberty
Whitley	Paul A. Garber, South Whitley

Councilors

Second District	H. C. Wadsworth, Washington
Seventh District	C. J. Clark, Indianapolis
Eighth District	E. H. Clauser, Muncie
Ninth District	F. T. Romberger, Lafayette
Eleventh District	Ira Perry, North Manchester
Thirteenth District	Alfred Ellison, South Bend

Past Presidents

E. M. Shanklin, Hammond
Charles N. Combs, Terre Haute
George Daniels, Marion
Charles E. Gillespie, Seymour
F. S. Crockett, Lafayette
E. E. Padgett, Indianapolis
E. M. VanBuskirk, Fort Wayne
A. M. Mitchell, Terre Haute

Officers

M. A. Austin, Anderson, president
C. H. McCaskey, Indianapolis, president-elect
A. F. Weyerbacher, Indianapolis, treasurer
E. O. Asher, New Augusta, executive committeeman
Albert Stump, Indianapolis, attorney
Thomas A. Hendricks, Indianapolis, executive secretary

Delegate to A. M. A.

Don F. Cameron, Fort Wayne

THE PRESIDENT: I am informed we have a quorum. I therefore declare the House of Delegates open for the transaction of business. The first order of business is the election of officers.

ELECTION OF OFFICERS

Election of officers resulted as follows:

President-Elect: J. T. Oliphant, Farmersburg.

Treasurer: A. F. Weyerbacher, Indianapolis.

Delegates to A. M. A.: H. G. Hamer, Indianapolis (2 yrs.); George Dillinger, French Lick (2 yrs.).

Alternates: J. E. Ferrell, Fortville; A. S. Giordano, South Bend.

PLACE OF MEETING

Place of meeting for 1943: *Indianapolis.*

THE PRESIDENT: I now have the honor to present your President-elect, Doctor Oliphant.

DR. J. T. OLIPHANT: Mr. Chairman, members of the House of Delegates: I am well aware of my lack of qualifications for this office, but I accept the election as an expression of your friendship and good will. I wish I could express my appreciation of the friendship of this group of men. All I can say is, I thank you for the election.

Election of Councilors:

Second District, H. C. Wadsworth, Washington.

Fifth District, A. M. Mitchell, Terre Haute (to fill the unexpired term of Dr. O. O. Alexander).

Eighth District, E. H. Clauser, Muncie (No election yet).

Eleventh District, Ira Perry, North Manchester.

Buy
War Bonds

REPORTS OF REFERENCE COMMITTEES

Sections and Section Work

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your committee wishes to commend the Committee on Scientific Work for the fine program which it has provided here for the members of the Indiana State Medical Association.

The sectional meetings have been well attended due to the diversified subjects that have been discussed in such an able manner.

The Committee on Scientific Work, including the section officers, are to be complimented on the high grade of work they have performed.

It has come to the attention of this reference committee that there is a feeling that the annual session of the state association should not be held any more for the duration. We earnestly recommend to the House of Delegates that this idea be done away with and that we continue to hold our annual session with its scientific meetings.

B. W. Egan, *Chairman*
G. H. Kamman
I. M. Sanders
S. M. Cotton
O. H. Stewart

On motion of Dr. Daniels, seconded by Dr. Clark, this report was adopted.

Rules and Order of Business

As nothing was referred to this committee, it had no report to make.

Medical Education and Hospitals

As nothing was referred to this committee, it had no report to make.

Public Policy and Legislation

House of Delegates,
Indiana State Medical Association.

Gentlemen:

(1) Your Reference Committee on Public Policy and Legislation, to which was referred the resolution regarding action to be taken by this association as to prevention of accidents on the highways, has had the resolution under consideration and now reports that it recommends the resolution be amended to read as follows, and that the resolution as amended and submitted herewith be adopted:

"WHEREAS, A recent tragic traffic accident involving an alleged epileptic driver has focused public attention on the threat against the public welfare of unfit automobile drivers on the highways; and

"WHEREAS, The licensing of a driver presupposes that he is physically capable of driving an automobile; and

"WHEREAS, It is in the interest of the public safety to take from Indiana streets and highways drivers afflicted with seizures of unconsciousness or otherwise unfit to drive automobiles; therefore be it

"*Resolved*, That the Indiana State Medical Association recommends that the 1943 session of the Indiana General Assembly enact legislation making it a penitentiary offense for any person wilfully to make any false statement for the purpose of obtaining a license to drive a motor vehicle; and that the Committee on the Prevention of Traffic Accidents of the Indiana State Medical Association give whatever assistance is within its power to the drafting of an application form in sufficient detail and accuracy that truthful answers to the questions therein contained will disclose the fitness or the unfitness of the applicant to receive a license to drive a motor vehicle."

(On motion of Dr. Daniels, duly seconded, the above section of this report was adopted.)

(2) The following resolution was introduced by Dr. Nolting, chairman of the Advisory Committee on Maternal and Child Health, at the request of Doctor J. H. J. Upham, former president of the American Medical Association, and chairman of the Board of Directors of the Planned Parenthood Federation of America, Inc.:

Resolution

"WHEREAS, The American Medical Association has recommended medical control of the practice of contraception where scientifically indicated; and

"WHEREAS, There is much confusion in the minds of the laity who depend on the medical profession for leadership and advice along the lines of birth control and planned parenthood; therefore be it

"*Resolved*, That the Indiana State Medical Association give its approval of and endorse the recommendations of the American Medical Association, with the understanding that such contraception information be given only to those patients in whom the proper indications present themselves, so that the well-being of prospective and potential mothers may be better safeguarded."

Your reference committee does not recommend the adoption of this resolution.

(On motion of Dr. Daniels, duly seconded, the House of Delegates concurred in the recommendations of the reference committee.)

(3) The resolution of the Anti-Tuberculosis Committee of the Indiana State Medical Association is approved and it is recommended that it be adopted. The resolution is as follows:

Resolution

"The law passed at the 1941 session of the legislature requiring the examination for tuber-

culosis of all teachers, janitors and school bus drivers is an advance step in the control of tuberculosis.

"Much has been accomplished through the administration of the law, in case finding, in preventing the spread of tuberculosis and from the educational point of view.

"However, there is evidence that in some instances, school boards and trustees seeking economy rather than effective service have not complied with the spirit of the law in type of examination required. In some few instances, also, a direct violation of the Act was encountered; therefore be it

"*Resolved* by the Anti-Tuberculosis Committee of the Indiana State Medical Association, That suitable action be taken to strengthen the Act by making its requirements more definite and by the inclusion in the Act of a provision for the establishment of a board of review to which all x-ray films will be sent for determination; and be it further

"*Resolved*, That it is the sense of the committee that a director of tuberculosis in the State Board of Health be appointed, whose duties shall include the administration of the Teacher Examination Act, and consideration of the many increasing tuberculosis problems due to the present war situation."

DR. EARL VAN REED: May I ask just what that board will consist of? If these films went through the hands of a recognized roentgenologist would it still be necessary for the board to pass on them? I know of some instances where they were passed on by men who were not competent.

DR. MOORE: The committee considered that, and that is the thing the committee is trying to prevent by having the board of review consist of whoever the State Board of Health may appoint.

(Moved by Dr. Wadsworth that the resolution be tabled. On vote, this motion was lost.)

(Moved by Dr. Paul A. Garber that the recommendation of the reference committee be approved. Seconded and carried.)

(4) The resolution introduced by Dr. Clark was approved for adoption with the following changes: that typhoid immunization for school children be only for the duration of the war, and the elimination of immunization for diphtheria for adults in defense projects. The resolution will read:

Resolution

"WHEREAS, A state of national emergency from the standpoint of medical care exists; and

"WHEREAS, There has already been and will continue to be a tremendous loss of physicians from private practice; and

"WHEREAS, The continuation of the all-out war effort in this state depends on the public health; therefore be it

Resolved, That a law be introduced into the state legislature requiring immunization against smallpox and diphtheria for all children prior to entry into school; immunization against typhoid for all children for the duration of the war; and immunization against smallpox and typhoid fever for the employees of all primary defense industries."

(On motion of Dr. Daniels, duly seconded, the above resolution was adopted.)

(5) The report of the Committee on Public Policy and Legislation is hereby approved as printed in the handbook and we recommend its adoption.

(On motion of Dr. Daniels, duly seconded, this section of the report was adopted.)

(6) The report of the Permanent Study Committee on Health Insurance has been reviewed and your committee recommends its adoption and approval as printed in the handbook.

(On motion of Dr. Daniels, duly seconded, the above section of the report was adopted.)

(7) The committee has had under consideration the report of the Advisory Committee to the Bureau of Maternal and Child Health of the Indiana State Board of Health and recommends that the report be adopted and approved with the following exceptions and corrections:

First, the word "premature" at the top of page 82 should be corrected to read "prenatal."

Second, that the last paragraph on page 85 be deleted from this report for the reason that the same subject matter has been covered in the report of the Reference Committee on Hygiene and Public Health.

(On motion of Dr. Daniels, duly seconded, the above section of the report, with the corrections made by the committee, was adopted.)

(8) The committee has had under consideration the report of the Director of Research on Sickness Insurance. Inasmuch as the report is self-explanatory and consists of a statement of the director, personally, the committee has concluded that the report does not require any action by the committee or by the House of Delegates.

(9) The committee has considered the report of the Liaison Committee of the Division of Services for Crippled Children, which report merely submits the report of Doctor Mettel to that committee. The reference committee recommends that the report of Doctor Mettel to the Liaison Committee be adopted and approved.

(On motion of Dr. Daniels, duly seconded, the above section of the report was approved.)

(10) The report of the Committee to Study Cultists and Irregular Practitioners has been considered, both the majority and the minority report. Your committee wishes to recommend the majority report and herewith submits the following resolution:

Resolution

Resolved, That the Indiana State Medical Association recommend that the 1943 session of the Indiana General Assembly enact a law pro-

viding for the annual registration of all practitioners of every type and for the payment of a fee therefor in an amount of not more than $2.00 per year.

This recommendation for the adoption of the resolution and the report was supported by a majority of the reference committee, consisting of Dr. Will Thompson and Dr. V. L. Turley. A minority of the committee, consisting of Dr. Ben Moore, dissents from the report concurred in by the majority.

(Moved by Dr. Thompson that the majority report be adopted. Motion seconded.)

Dr. M. R. Lohman: I am the one who wrote the minority report and I would like to say why we made it. We feel that the funds thus collected should be paid to the State Medical Association to handle the funds as they see fit.

Dr. Claude B. Paynter: We have been here year after year making an effort to adopt legislation similar to this. The Washington County Medical Society has year after year instructed its delegates who come here to make the same protest before the House of Delegates. We believe, and I think we want it to be thoroughly understood here, that if this proposition comes before our state legislature we, regardless of what action the House of Delegates of the State Medical Association takes—the members of our society, individually, will make every effort to induce the Representatives from our district to vote against such a bill. I do not want you to feel that we, as a medical organization, would make any fight against it—we want to be loyal to the state association; but as individual physicians, believing that we have the right to do as we please, we will make an effort to prevent any law being passed that will provide for annual registration of physicians. The Appellate Court in Washington holds that we are not a professional group. If we are not, we probably will join the A. F. of L. and the C. I. O. in the fight in Indianapolis. The Washington County physicians have been accustomed to fighting their own battles within their own confines and jurisdiction, and that is exactly what we expect to do, regardless of any action that might be taken here.

(Vote on the motion to adopt the majority report, lost.)

(11) The report of the Medical Relief Committee has been accepted as printed in the handbook.

(On motion of Dr. Daniels, duly seconded, the above section of the report was adopted.)

The following resolution was introduced by Albert Stump, Esq., counsel for the association.

Resolution

"Whereas, The difficulties, and in many instances the complete impossibilities, under present conditions, of obtaining reliable information concerning the standards of training of foreign medical schools, leaves it always questionable and uncertain as to whether doctors who come to this country from foreign countries satisfy: First, the standards of training exacted for graduates from accredited medical schools in the United States; and Second, the standards as determined by the State Board of Registration and Examination; and

"Whereas, It is well known that the standards of many foreign schools are far below those of accredited schools of the United States; and that the requirements for license are also lower in many countries than in the United States; and

"Whereas, The public welfare demands that the standards of medical training and licensure should be rigorously maintained during the present crisis; therefore be it

Resolved, That the Indiana State Medical Association commends the State Board of Medical Registration and Examination on its determined stand against any effort to lower the requirements for licensure for the practice of medicine in Indiana, and confidently hopes that the Board will continue the high standards it has fixed; and be it further

Resolved, That it is the judgment of this association that no certificate for a license should be issued to any applicant who does not satisfy the Board that he possesses the following qualifications:

1. That he has full citizenship in the United States.
2. That he is a graduate of a school known by the Board to satisfy fully the requirements of medical schools fixed by the Board, to be accredited.
3. That he has passed an examination by the Indiana Board, or by some other board whose examination is equivalent to that given by the Indiana Board."

The Reference Committee on Public Policy and Legislation recommends the adoption of this resolution.

(On motion of Dr. Daniels, duly seconded, the above resolution was adopted.)

Mr. President, and Gentlemen: The Reference Committee on Public Policy and Legislation has enjoyed its work and we hope that we have been of some benefit to the association. We thank you for the opportunity.

Ben B. Moore, *Chairman*
S. C. Darroch
J. F. Gillespie
Will Thompson
V. L. Turley

Dr. Moore: I move that this report, as a whole, with the various changes and additions, be adopted.

(Motion seconded by Dr. Daniels, and carried.)

Publicity

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Committee on Publicity has examined the report of the Bureau of Publicity.

Doctor Hamer and his associates deserve the appreciation and commendation of the Association for their practical and sane handling of information to the public. This committee approves and recommends continuance of the Bureau's cooperation with the League of Women Voters.

It is recommended that the Bureau continue releases of pertinent information on medical subjects for the public. The popularity of the writings of medical columnists indicates a real public interest in medical matters affecting large groups. As this interest is accentuated by the growing disposition not to use the doctors' time for apparently minor matters, the Association has a duty to advise the general public of the matters and limits of safety for unadvised care.

The committee approves the attitude of the historian in postponing his work for the present.

W. U. Kennedy, *Chairman*
C. A. Ball
O. G. Brubaker
Earl Van Reed
A. E. Stinson

(On motion of Dr. Daniels, duly seconded, the above report was adopted.)

Hygiene and Public Health

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Reference Committee on Hygiene and Public Health has taken the following action:

(1) Report of Committee on Study of High School Athletics. We recommend the adoption of the report as printed on page 73 of the Handbook and commend the committee for its work.

(2) Report of Committee on Mental Health. We recommend the adoption of the report as printed on page 74 of the Handbook and commend the committee for its work.

(3) Report of the Committee on Control of Cancer. We recommend the adoption of the report of the Committee on Control of Cancer.

(4) Report of Committee on Venereal Disease. We recommend the report be adopted as read.

(5) Report of the Committee on Industrial Health. We recommend that this report be accepted as printed in the Handbook. We also recommend the adoption of the following supplemental report, written and proposed by Dr. E. S. Jones, of Hammond, acting chairman of the Committee on Industrial Health:

"Since I have just been appointed as chairman of the Committee on Industrial Health of the Indiana State Medical Association and because I have been out of town for the past two weeks, it has been impossible to call a meeting of this Committee. Consequently, I have taken the liberty of preparing some suggestions to present to this Committee at the breakfast, September 30. I also present them to this House of Delegates as a temporary report until changed or acted upon by the committee as a whole. We are submitting to the entire association, on separate leaflets, the Indiana Workman's Compensation schedule for several of the most common injuries, which we hope will be of convenience to the doctor in cases of determining permanent impairment for these disabled members.

1. Suggest to the American Medical Association Committee on Industrial Health that a study be made on compensation laws of the various states to aid in making a model, uniform workman's compensation law for all states, in the hope that it may be adopted by the various states or that it may be used as a model to draft an even better one.

2. Suggest that the A. M. A. propagandize the heads of industry in the value of medical supervision of industry to prevent the loss of working time through proper hygiene, safety devices, early care of minor injuries, and other pertinent facts.

3. Suggest that the A. M. A. prepare exhibits for the state medical meetings in the matter of prevention and care of industrial accidents and diseases.

4. Suggest that the A. M. A. make a survey of industries to determine, first, loss of time as a result of colds and upper respiratory infections; second, to determine what has been done and with what success, to prevent that loss of time which results from colds and upper respiratory infections; and third, what, if any, value has been obtained from the use of various cold prevention measures, such as vaccines, capsules, tablets, or other products.

5. Suggest that the A. M. A. and the various state and county societies conduct a survey to determine whether the various hospitalization insurance plans have increased the amount of lost time in industry due to longer stays in the hospital, not only post-operatively, but for all other reasons. In other words, have the voluntary hospital insurance plans been an asset or a liability to industry?

6. Suggestion that the Indiana State Medical Association devote more time to the problems of industrial surgery and medicine at the state medical meetings.

7. Suggest that the Indiana State Medical Association use means to stimulate interest among the heads of industry in the prevalent health problems in their communities, and in the resulting importance to their respective industries.

8. Suggest to the legislative committee that as a part of the industrial compensation board, there should be three doctors of medicine, who should act as a board of appeal and who should be paid by the state as final arbiters in cases where there seems to be a discrepancy of opinion in the medical testimony.

9. Suggest to the medical schools of the country that they present at least a one-week course of intensive postgraduate work in the case of industrial injury and diseases, particularly along the line of prevention of infections, treatment of open wounds, fractures, and skin lesions.

10. Suggest that at least one meeting each year of the county or district medical societies be devoted to medical and surgical problems in industry, and that this can best be done in the form of a clinic.

11. Suggest that the industrial committee of the county medical societies function more closely with the industrial nursing societies to improve the care of the injured in the plants and prevent accidents.

12. Suggest that the various county societies try to promote a closer cooperation between the industrial surgeons and the non-industrial medical men, and we submit herewith a copy of the plan as adopted by the Lake County Medical Society, which governs the ethical and professional relationships between physicians in industrial and private practice.

13. Suggest closer cooperation between the industrial division of the state medical society and the organization of plant personnel directors in developing some plan by which the handicapped may be employed, and other closely associated problems.

14. Suggest that a more uniform employment examination blank be worked out as well as that a more uniform accident report blank be suggested for the use of the various insurance companies.

15. Suggest that insurance companies compile statistics on the various types of accidents, the amount of time loss caused by them, and a committee be appointed to study these in conjunction with personnel directors with a view to the formulation of methods by which the various types of accidents could be eliminated or reduced.

16. Would like discussion in the committee and in the House of Delegates on the question of deferment from military service of industrial physicians and surgeons, and also the question of procurement of medical men for these various plants."

(6) We recommend the adoption of the Report of the Anti-Tuberculosis Committee.

(7) We recommend the adoption of the report of the Committee on Conservation of Vision.

(8) We move the adoption of the report of the Pneumonia Committee and that it be discharged.

(9) We move the adoption of the report of the Committee on Civilian Defense.

(10) In regard to mileage fee, we recommend that a reduced mileage fee be given to communities who have been deprived of their physicians and that the allocation of work be made and this be done according to a survey compiled by local societies.

(11) Your reference committee has given careful attention to the report of the Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health as printed in the handbook and in addition it has considered the proposal made by Dr. Herman Baker requesting the attitude of the House of Delegates on the proposal that the Board of Health take over or supervise obstetric and pediatric care of the needy families of men now in the armed forces.

In general, your reference committee approves the report of the State Board of Health Advisory Committee, especially in commending the Board's activities in the prevention of communicable diseases such as smallpox and diphtheria and in its efforts to educate the public regarding the necessity of early immunization of all children by the family doctor.

Your reference committee has given special attention to the last paragraph in the Advisory Committee's report under the heading of "Unassembled Activities of Advisory Committee," which appears on page 85 of the handbook. Under this heading is found the proposal that the State Board of Health by means of funds allotted to it furnish obstetric and pediatric care to wives and children of deserving men in our armed forces. Even though the Advisory Committee attempted to limit their approval of this proposal by suitable safeguards, such as free choice of physician by deserving families, your reference committee feels that the State Board of Health should under no circumstances indulge in medical or surgical care or treatment of patients, nor be allowed to designate out of the membership of our state medical association—all of whom are licensed to practice medicine, surgery and obstetrics—any particular physician to whom would be allocated work under the State Board of Health's supervision. Township trustees already have the power and the duty to furnish necessary care to all the needy through the services of the local physicians. Your committee considers this to be the preferable way and thus avoid the further centralization of medical care.

C. S. Black, *Chairman*
Harry P. Ross
W. H. Howard
M. B. Catlett
H. H. Dutton

(On motion of Dr. Black, seconded by Dr. Daniels, the above report was adopted.)

(On motion of Dr. Black, seconded by Dr. Daniels, the Report of the Committee on Study

of High School Athletics, and the Report of the Committee on Mental Health, as printed in the handbook, were adopted.)

On motion, duly seconded, the following reports of committees were adopted as printed in the handbook:

Committee on Control of Cancer
Committee on Venereal Disease
Committee on Industrial Health
Committee on Conservation of Vision
Committee on Civilian Defense

Amendments to the Constitution and By-Laws

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Reference Committee on Constitution and By-Laws report favorably on the resolution as submitted by the Tippecanoe County Medical Society and recommend that Section 7, Chapter X, of the By-Laws of the Indiana State Medical Association be amended to read as follows:

"When a member in good standing in a component society moves to another county in this state, his name, on request, shall be transferred without cost to the roster of the county society into whose jurisdiction he moves, provided the transfer is approved by majority vote of the membership of said society to which the membership is proposed.

Claude B. Paynter, *Chairman*
W. M. Miley
J. N. Kelly
J. R. Crowder
W. E. Jenkinson" .

(On motion of Dr. Paynter, duly seconded, the above report was adopted.)

Reports of Officers

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The committee wishes to commend very heartily the address of Dr. Austin, the president, to our body. It was concise and to the point. The admonition for the physician to look to his own health could never be more timely.

The committee likewise wishes to commend the address of Dr. McCaskey. It called attention to our many problems adequately and briefly. Especially to be commended are the remarks that medical problems in local situations should be met by organized medicine.

The committee notes with pleasure the report of our most efficient executive secretary. In addition to the very cordial and complimentary remarks in the first session of the House of Delegates, from the president of the State Bar Association, the committee wishes to emphasize further the very cordial remarks made by Mr. Carl Wilde in his presidential address to the Bar Association, which our secretary included in his report.

The treasurer's report was noted and found to be in its usual good order.

The report of the chairman of the Council attests to the numerous problems considered. The members are to be commended for the promptness and thoroughness with which problems are met.

Executive Committee: The report revolves around the general theme, "Win the war," with a discussion of the various problems arising in such a program, many of which have been referred to more specific committees. It is noted that every interest of the organization is bent toward carrying out the military program with outstanding success.

The committee calls attention again to the increase in membership for the ninth successive year.

The committee should be supported in their ruling that if honorary members desire THE JOURNAL, the subscription price should be paid by the local medical society.

The committee should be commended for enlisting the cooperation of Congressmen in supporting an amendment to the tax law, including all accounts collectible for income tax purposes at the time of death of a physician.

The Executive Committee recommends that measures be taken by the House of Delegates to prevent the employment of substandard physicians by industrial war plants. We have no specific recommendation as to how this be done, except as it can be partially controlled by the Board of Medical Registration and Examination.

Report of THE JOURNAL: Our committee wishes to commend our editor, Dr. Shanklin, very warmly for keeping THE JOURNAL to its usual high standard amid adverse conditions. We agree THE JOURNAL "need make no apologies."

The report of the delegates to the A. M. A. by Dr. Cameron was comprehensive and inclusive and attests to the diligence and activity of our delegates to that body.

J. O. Ritchey, *Chairman*
W. C. Wright
O. T. Scamahorn
Robert Acre
J. S. Robison

(On motion of Dr. Daniels, duly seconded, the above report was adopted.)

THE PRESIDENT: I regret to announce at this time the death of Dr. E. E. Long, of Shoals, which occurred last night at his home.

DR. H. P. ROSS: I move that the House of Delegates send a message of sympathy to Dr. Long's widow, and that the Chair appoint a committee for that purpose.

(Motion seconded and carried.)

THE PRESIDENT: I would also like to appoint a similar committee to draw up resolutions concerning the death of Dr. Charles R. Sowder.

(The following committees were appointed):

For Dr. Long: Drs. Ross, Daniels and Austin.

For Dr. Sowder: Drs. Austin, McCaskey and Oliphant.

Credentials

DR. W. F. CARVER: We have no further report.

Miscellaneous Business

DR. GEORGE DANIELS: The Committee on Arrangements made no report, for which we thank them very much. The Committee on Secretaries' Conference—we wish to commend the committee, and change nothing. The Committee on Necrology—the report is small and we wish to commend them. Committee on Indiana Inter-Professional Health Council—same action. Committee on M-Day and Veterans' Affairs—same action. Report of Committee on Physical Therapy—Okay! Aid to Needy Physicians—if they want to be relieved of their jobs we think you should relieve them. The Report of the Executive Committee as a whole was adopted, and we recommend that report. I wish to thank you for listening.

New Business

None.

DR. M. R. LOHMAN: I am sure we all appreciate the hospitality that has been extended to us at this meeting, especially by the members of the Orange County Medical Society and the French Lick Springs Hotel. We have had a delightful three days here. I feel we all owe a deep debt of gratitude to our retiring president for the very able way in which he has handled this organization during his tenure of office. I move that we extend to all of these a vote of appreciation. (Motion seconded by Dr. Daniels, and carried.)

No further business appearing, the House of Delegates of the 1942 session of the Indiana State Medical Association adjourned.

INDIANA STATE MEDICAL ASSOCIATION
GENERAL MEETINGS

First General Meeting, September 29, 1942

The first general meeting convened at 10:20 A. M., Wednesday, September 30, 1942, in the Main Convention Hall, French Lick Springs Hotel, French Lick, with the president, Dr. M. A. Austin, of Anderson, presiding. He introduced Dr. John K. Spears, president of the Orange County Medical Society, who extended greetings on behalf of that society and the physicians of Orange County. Dr. H. L. Miller, president of the Third District Medical Society of West Baden, also welcomed the members of the association.

Dr. M. A. Austin, of Anderson, delivered the President's Address.

Miss Lillian Adams, Nurse Recruiting Secretary, American Red Cross, Indianapolis, read a paper entitled "Military Need for Nurses."

The following scientific program was then presented:

Norman H. Plummer, M.D., New York, read a paper entitled "Treatment of Pneumonia."

Harry Edgar Mock, M.D., Associate Professor of Surgery, Northwestern University Medical School, Chicago, read a paper entitled "Skull Fractures and Brain Injuries."

Colonel James G. Townsend, M.D., Chief, Division of Industrial Hygiene, National Institute of Health, Bethesda, Maryland, read a paper entitled "The Role of the General Practitioner in the Present Industrial Hygiene Program."

Second General Meeting, Thursday, October 1, 1942

We regret that it was necessary to call off the second general meeting because of lack of attendance at this meeting. A splendid program had been prepared and we apologize to the guest speakers who had so kindly devoted their time and effort in preparing talks and coming to the meeting. Their papers will be published in THE JOURNAL.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

The meeting of the Section on Ophthalmology and Otolaryngology was called to order at 2:30 P. M., Wednesday afternoon, September 30, 1942, in the Radio Room of the French Lick Springs Hotel, French Lick, Indiana, with Dr. E. O. Alvis, Indianapolis, chairman of the Section, presiding.

Dr. Bernard J. Larkin, Indianapolis, read a paper on "Ocular Manifestations of Multiple Sclerosis." Discussed by Drs. James V. Cassady, South Bend; F. K. Hansel, St. Louis; J. Kent Leasure, Indianapolis; J. F. Gillespie, Greencastle; Morris Balla, South Bend, and Dr. Bernard J. Larkin, Indianapolis.

Dr. Hugh Kuhn, Hammond, read a paper on "Allergy in Relation to Otology." Discussed by Drs. Kenneth L. Craft, Indianapolis; F. K. Hansel, St. Louis, and A. C. Furstenberg, Ann Arbor, Michigan.

Dr. Bert E. Ellis, Indianapolis, read a paper on "Case Report of a Rare Intranasal Tumor." Discussed by Drs. Carl H. McCaskey, Indianapolis, and Bert E. Ellis, Indianapolis.

Dr. C. W. Rutherford, Indianapolis, read a paper on "Chemotherapy in Ophthalmology." Discussed by Drs. Robert J. Masters, Indianapolis; Harry S. Gradle, Chicago, Illinois, and Dr. C. W. Rutherford, Indianapolis.

Dr. Albert C. Furstenberg, Dean and Professor of Otolaryngology, University of Michigan, Ann Arbor, presented an illustrated talk on "Diseases of the Salivary Glands." Discussed by Drs. Bernard J. Larkin, Indianapolis; C. E. Gillespie, Sey-

mour; H. L. Stanton, Evansville; Walter C. Wright, Fort Wayne; F. S. Cuthbert, Kokomo; Bert E. Ellis, Indianapolis, and Dr. A. C. Furstenberg, Ann Arbor, Michigan.

The following officers were elected:

Chairman: O. G. Brubaker, M.D., North Manchester

Vice-chairman: Claude A. Robison, M.D., Frankfort

Secretary: Bernard Ravdin, M.D., Evansville

The meeting adjourned at 5:20 P. M.

SECTION ON SURGERY

The meeting of the Surgical Section was called to order at 2:35 P. M., Wednesday, September 30, 1942, in the North Convention Hall, French Lick Springs Hotel, French Lick, Indiana; Dr. W. D. Inlow, Shelbyville, secretary of the Section, presiding.

Dr. Karl M. Koons, Indianapolis, presented a paper entitled, "Surgical Emergencies Due to Small Bowel Lesions." Discussed by Dr. Lester R. Dragstedt, Professor of Surgery, University of Chicago and the School of Medicine, Chicago.

Dr. J. F. Maurer, Brazil, read a paper on "Injuries to the Peripheral Nervous System." Questioned by Dr. George Collett, Crawfordsville, and replied to by Dr. Maurer.

Dr. Edward T. Stahl, Lafayette, read a paper on "Adequate Internal Fixation of Fractures." Questioned by Dr. J. F. Maurer and replied to by Dr. Stahl.

Dr. N. K. Forster, Hammond, read his paper on "Wartime Industrial Surgery." Questioned by Dr. M. C. Topping, Terre Haute, and Dr. J. W. Hilbert, South Bend, and replied to by Dr. Forster.

Dr. Lester R. Dragstedt, Professor of Surgery, University of Chicago, The School of Medicine, Chicago, presented his paper on "Some Physiological Principles in Surgery of the Pancreas." Discussed by Dr. J. H. Warvel, Indianapolis; Dr. L. F. Beggs, Columbus; Dr. E. A. Nichols, Bloomington, and, in closing, by Dr. Dragstedt.

Election of officers: W. D. Inlow, M.D., Shelbyville, Chairman; W. H. Howard, M.D., Hammond, Vice-chairman; and L. T. Rawles, M.D., Fort Wayne, Secretary.

SECTION ON MEDICINE

The Section on Medicine met in the Main Convention Hall of the French Lick Springs Hotel, French Lick, Wednesday, September 30, 1942, the vice-chairman, Dr. Don E. Wood, of Indianapolis, presiding. The following scientific program was presented:

Norman H. Plummer, M.D., New York, read a paper entitled "Virus Pneumonia."

In a symposium on the Sulfonamides, Dr. John L. Ferry, of Whiting, read a paper entitled, "Toxic Reactions to the Sulfonamides." This was discussed by Drs. John H. Warvel, of Indianapolis; Norman H. Plummer, of New York; C. J. Clark, of Indianapolis; C. E. Briscoe, of New Albany; John A. MacDonald, of Indianapolis; Kenneth G. Kohlstaedt, of Indianapolis; Don E. Wood, of Indianapolis; B. W. Marshall, of Nashville, and John L. Ferry.

Election of Officers resulted as follows:

Chairman——Don E. Wood, M.D., Indianapolis
Vice-chairman—George Willison, M.D., Evansville
Secretary——Eugene F. Boggs, M.D., Indianapolis.

SECTION ON ANESTHESIA

The Section on Anesthesia convened at 2:30 P. M., on Wednesday, September 30, 1942, with the chairman, E. P. Buckley, M.D., Jeffersonville, presiding.

Dr. Clairmont W. Siekerman, Indianapolis, read his paper on "Adaptability of Various Anesthetic Agents to Certain Types of Operations."

Dr. R. N. Harger, Indianapolis, presented his subject, "Ether Concentration in Blood and Breath of Patients During Surgical Anesthesia."

Dr. Floyd T. Romberger, Lafayette, read his prepared paper on "What Is Good Anesthesia?"

A round-table discussion of the above papers, led by Dr. C. N. Combs, Terre Haute, was participated in by the following: Dr. E. T. Zaring, Terre Haute; Dr. R. W. Kretsch, Hammond; Dr. F. T. Romberger, Lafayette; Dr. Lillian B. Mueller, Indianapolis; Dr. I. E. Huckleberry, Salem; Dr. E. P. Buckley, Jeffersonville; Dr. J. S. Brown, Carlisle; Dr. C. W. Siekerman, Indianapolis; Dr. R. N. Harger, Indianapolis; Dr. Mary F. Travis, Indianapolis; Dr. J. M. Whitehead, Indianapolis; Professor Russell L. Jones, Bloomington.

On motion made by Dr. C. N. Combs, Terre Haute, and seconded by Dr. Lillian B. Mueller, Indianapolis, it was voted to retain the present officers until further arrangements are made concerning the Section.

The following officers, therefore, hold over:

Chairman——E. P. Buckley, M.D., Jeffersonville
Vice-chairman Frank W. Ratcliff, M.D., Lafayette
Secretary——J. M. Whitehead, M.D., Indianapolis

On motion made by Dr. J. M. Whitehead, Indianapolis, seconded by Dr. Lillian B. Mueller, Indianapolis, it was voted to adjourn at 5:15 P. M.

LOCAL SOCIETY REPORTS

Gibson County Medical Society members met at the Emerson Hotel, at Princeton, on September fourteenth. Doctor J. Robert Hendon. of Louisville, was the guest speaker. He presented a paper on "The Middle-Age Heart." Twenty-three members were in attendance at this meeting.

* * *

Miami County Medical Society members held their September meeting at the Dukes Hospital, at Peru,

on the twenty-fifth. This was a business meeting. Eleven members attended the meeting.

* * *

Clinton County Medical Society members met at the Coulter Hotel, at Frankfort, on October sixth. A general discussion of the war situation was held and a report of the state convention was given. Seven members were present.

* * *

Elkhart County Medical Society members held a dinner meeting at the Hotel Elkhart, Elkhart, on October first. Doctor Stanley Gibson, professor of Pediatrics, Northwestern University, presented a paper entitled "Cardiac Disease in Children." Thirty-eight members attended the meeting.

TENTH COUNCILOR DISTRICT MEETING

At a meeting of the Tenth Councilor District Medical Society, held at East Chicago on October seventh, Dr. A. W. Rhind, of Hammond, was elected President, and Dr. S. H. Skrentny, of Hammond, was elected Secretary. Dr. Stanley Mauck, of Chicago, addressed the society on the subject "Abdominal Surgery." At this meeting a resolution was adopted, as follows:

"WHEREAS, There have been ninety-nine Presidents of the Indiana State Medical Association, elected or acting, and

"WHEREAS, During the ninety-three years of existence of the State Association, Lake County and the Tenth District, has had only two presidents, and

"WHEREAS, Lake County is the second largest county society, and the Tenth District the fourth largest district society in the State, and

"WHEREAS, The Lake County and Tenth District Medical Societies feel that their outstanding accomplishments and support of the Indiana State Medical Association entitle them to recognition in the election of a president of the Association more than twice in a hundred years, and

"WHEREAS, The Lake County and Tenth District Societies include in membership an outstanding physician who is highly deserving of this recognition because of his years of service to his county society as president and to his district society as president and to the state association as councilor, and as chairman of the Permanent Study Committee on Health Insurance and the National Medical Situation; who is especially qualified to assume this great responsibility for organized medicine in Indiana at this time; therefore be it

"*RESOLVED*, That the delegates from this district be instructed to present in nomination the name of Dr. N. K. Forster, for president-elect of the Indiana State Medical Association at the annual meeting of the House of Delegates in 1943."

WOMEN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

State Officers 1942-1943

President—Mrs. Arnold H. Duemling, Fort Wayne.
President-elect—Mrs. James W. Baxter, Jr., New Albany.
1st Vice-president—Mrs. W. H. Howard, Hammond.
2nd Vice-president—Mrs. Charles Viney, Logansport.
3rd Vice-president—Mrs. Fred Gifford, Indianapolis.
4th Vice-president—Mrs. M. A. Austin, Anderson.
Recording Secretary—Mrs. Charles Owens, Muncie.
Corresponding Secretary—Mrs. E. M. VanBuskirk, Ft. Wayne.
Treasurer—Mrs. C. E. Monk, Kendallville.

Committee Chairmen

Archives—Mrs. E. M. Shanklin
Legislation—Mrs. F. B. Wishard
Exhibits—Mrs. M. B. VanCleave
Hygeia—Mrs. George Dillinger
Organization—Mrs. Herbert A. Ray
Public Relations—Mrs. William E. Tinney
Bulletin—Miss Lucy E. Schuler
Press and Publicity—Mrs. William Niles Wishard, Jr., Mrs. Emmet B. Lamb, Mrs. A. B. Richter.
Budget—Mrs. F. M. Gastineau
Organization—Mrs. Herbert A. Ray, Northern Indiana; Mrs. James W. Baxter, Jr., Southern Indiana.

NEWS OF THE WOMAN'S AUXILIARY MEETING AT FRENCH LICK

The activities of the Woman's Auxiliary to the Indiana State Medical Association began on Tuesday afternoon with an informal tea, honoring Mrs. Frank M. Haggard, National President, and Mrs. E. O. Nay, State President. At the dinner that evening Mrs. Haggard was the principal speaker.

An impressive memorial service, in charge of Mrs. Herbert Ray, was held at the beginning of the business meeting in honor of those members who had died during the past year. Those who were so honored were:

1. Mrs. R. J. Anderson, Indianapolis
2. Mrs. Robert J. Masters, Indianapolis
3. Mrs. Wm. Garshwiler, Indianapolis
4. Mrs. Blanchard Pettijohn, Indianapolis
5. Mrs. C. E. Spurgeon, Muncie
6. Mrs. Hugh E. Cowling, Muncie
7. Mrs. Loren Martin, Indianapolis

Dr. John Ferree, secretary of the Indiana State Board of Health, spoke on "Civilian Participation in Our War Health Program." He stressed the following points for us to remember:

1. Health education—the importance of keeping well.
2. In speaking to various groups we are to emphasize the fact that it is their patriotic duty to keep well.
3. Support Public Health Ordinances—Grade A Milk, Restaurant Ordinances, *et cetera*.
4. Urge immunizations as a health protection.

(Continued on page xxi)

(Continued from page 676)

5. Assist in the civilian training for war—air raid wardens, fire watchers, first aid, nurse aid, home nursing, *et cetera*.
6. It is our duty to create a comfortable life with less comforts.
7. The War Program for everyone is:
   a. Get along with less.
   b. Take good care of the things you have.
8. Make a thorough search of your home for salvage.
9. Budget:
   Great Britain is spending six dollars out of every ten dollars for their war effort. At the time of Pearl Harbor we were spending only two out of every ten dollars for war.
   Buy bonds and stamps.
   Save to pay taxes.
10. Information:
    Help dispel rumors.
    Spreading truth is a part of our job.

Following the installation of officers, at which Mrs. C. F. Voyles presided, Mrs. Duemling responded. She gave us these points to take to our local organizations:

1. There are less doctors in communities now, so we must guard against socialized medicine more than ever.
2. Be prepared to defend our homes, families, and the profession.
3. Speak to women's clubs, church groups, *et cetera*, at every opportunity, to keep them informed.
4. Inasmuch as this is the legislative year, we should investigate the candidates to see who are favorable to the medical profession.
5. It would stimulate interest to have some state auxiliary officer at one meeting of the local auxiliaries during the year.
6. County organizations will want to carry members whose husbands are away.
7. Read the Bulletin, THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION and *The Journal of the American Medical Association.*
8. Listen to the radio program, "Doctors at Work."
9. Press chairmen: Keep papers informed always.
10. Solidarity in our organizations can be maintained by duties through war work, and by friendship.

ANNUAL REPORTS FROM COUNTY AUXILIARIES

CARROLL COUNTY

The Woman's Auxiliary to the Carroll County Medical Society was organized in December, 1939, with eleven charter members. This year we have a membership of ten.

Six of our members are serving as directors in other organizations. They are Mrs. Charles

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

In addition to our Professional Liability Policy for private practice we issue a special

MILITARY POLICY

to the profession in the Armed Forces at a

REDUCED PREMIUM

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

Disabilities occasioned by war are covered in full

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

P H OMAHA INSURANCE P C OMAHA

For ethical practitioners exclusively

(57,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $32.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $64.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $96.00 per year

40 years under the same management

$2,220,000 INVESTED ASSETS
$10,750,000 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

Crampton, Delphi; Mrs. Brubaker, Flora; Mrs. Mullin, Rockfield; Mrs. George Wagoner, Burrows; Mrs. Charles Wise, Camden; and Mrs. Max Adams, Flora.

A joint meeting is held with the Carroll County Medical Society the second Thursday of each month either for a regular meeting or a dinner meeting.

Our county was hostess to the district medical meeting held May twentieth. This meeting was held in Flora. In the afternoon we enjoyed a musical program, followed by a book review given by Mrs. Harold Baker, of Camden. In the evening we joined the doctors at a banquet meeting and had the pleasure of having Mr. Alvin Wynkoop, of Lebanon, as speaker.

Although we are a small organization, we are busy in defense work and have donated five dollars to the Red Cross.

CASS COUNTY

In September a meeting was held for the election of officers:

President: Mrs. C. L. Williams
Treasurer: Mrs. E. B. Jewel
Secretary: Mrs. C. L. Rice
Corresponding Secretary: Mrs. John Bradfield
First Vice-President: Mrs. Paul Wilson
Second Vice-President: Mrs. Earl Bailey

In October the Cass County Auxiliary entertained the wives of the doctors from the Eleventh District at Longcliff, Mrs. C. L. Williams acting as chairman of the program. Mr. J. Henry White gave a very interesting lecture on the age-old culture and civilization of China. This inspiring lecture was followed with colored slides of China. A lovely tea was given the ladies by Mrs. Paul Wilson and her committee. There were thirty-five ladies present at this meeting.

The Cass County Auxiliary held a dinner meeting at the St. Joseph's Hospital in November. Thirteen members were present at this meeting. The Auxiliary was invited to hear Mr. Shephard (speaker for the Cass County Medical Society), who spoke on the medical problems of the Welfare Society. Thirteen members were present.

In January the Auxiliary held a dinner meeting at the Cass County Hospital. Dr. B. W. Egan gave a talk on civilian defense and how the Auxiliary could play their part in this program. Mrs. John Bradfield was appointed to take charge of the surgical dressings for the medical kits, to be used by the doctors in emergency surgery.

The Cass County Auxiliary was honored in February by having as their guest speaker Mrs. Ernest O. Nay, our state president. This meeting was held at the St. Joseph Hospital.

A dinner meeting was held at the Cass County Hospital in March. Fourteen members were present. Mrs. H. M. Schultz was made chairman of the health and nutrition contest to be held in the schools. Mrs. W. W. Holmes gave a very stirring address on patriotism. Mrs. Keefe read an interesting history of Dr. Graham Fitch, one of the pioneer doctors of Cass County. This paper was prepared by Mrs. John Davis.

In April the Auxiliary members gave a dinner and handkerchief shower for Mrs. W. W. Holmes at the home of Mrs. Lowell Hillis. Mrs. Holmes gave up her home here to join Major W. W. Holmes at Spartanburg, South Carolina. Mrs. Holmes was active in helping to organize the Cass County Medical Auxiliary. Eighteen members were present at this meeting.

The May monthly meeting was held at the Cass County Hospital. Mrs. A. P. Flynn gave a very interesting talk on the blood bank and blood plasma. All members were urged to become donors to the blood bank.

Mrs. Thomas Keefe, our public relations chairman, gave a report on the work for the control of cancer in Cass County. Five thousand leaflets on cancer facts were distributed, and posters and milk bottles were placed in public places for donations. Through Mrs. Keefe's efforts and her committee, $147.00 was collected for Cass County. Two years ago only $3.00 was collected.

During the months of June, July and August a number of the Auxiliary members worked diligently on surgical dressings for the Red Cross, to complete the quota by September.

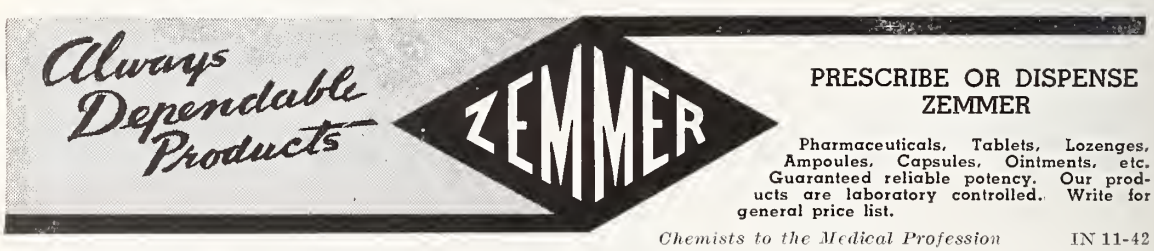
The new officers for the Medical Auxiliary for Cass County are:

President: Mrs. H. M. Schultz
Vice-President: Mrs. John Davis
Secretary and Treasurer to be nominated.

FLOYD COUNTY

The Woman's Auxiliary to the Floyd County Medical Society had a paid membership of twenty-eight for the year 1941-42.

The highlight of our year's activities was the annual public relations meeting, at which time Dr. J. V. Pace, head of Silvercrest, the southern Indiana Tuberculosis Sanatarium located just outside



of New Albany, spoke on "Modern Methods of Treating Tuberculosis." The lecture was illustrated. Free health literature was distributed.

The Auxiliary members worked with the county chairman during the drive of the Women's Field Army for the Control of Cancer, and the Red Cross cooperated by allowing a sound film, entitled "Enemy X," to be shown to the home nursing classes.

Members of the Auxiliary assisted with the county immunization program, which is conducted annually by the medical society and the Third District Health Department.

Our group looks forward each year to the visit of our state president, and this year we were honored and very happy to have Mrs. Ernest O. Nay as a luncheon guest at our March meeting.

One of our Auxiliary members has written biographies of three Floyd County pioneer physicians, with the possibility of doing more when time permits.

As is the case throughout the state, our members have been actively engaged in Red Cross and defense work. Mrs. William Garner, a graduate nurse, is chairman of the Red Cross Nurses' Aid work, Mrs. Sam Baxter serves on that committee, and Mrs. A. P. Hauss, also a graduate nurse, served as instructor of Nurses' Aid courses. They will continue in this work the coming year. Two members, Mrs. A. M. Baker and Mrs. John Habermel, have received their diplomas in the course. Others have taken courses in first aid and home nursing and all have participated in some form of Red Cross or defense work.

We have lost several members because of the physicians being called to service. The rest of us will carry on in the usual manner, but perhaps with more enthusiasm and determination to do a better job than ever before.

HOWARD COUNTY

The Woman's Auxiliary to the Howard County Medical Society presented Dr. W. W. Bauer to the general public at a tea in November. Dr. Bauer spoke on "Nutrition."

Dr. Thomas Noble, Jr., assisted by his wife, gave an interesting talk and showed movies of the Indians of the southwestern United States at our Christmas party, given by the Howard County Medical Society.

We were honored to entertain Mrs. Ernest O. Nay, the president of the Woman's Auxiliary to the Indiana State Medical Association, who spoke to our group at the April meeting.

We contributed our time, as a group, in making bandages; also money to the Red Cross.

We hold monthly meetings from October through May. This year we will be under the able direction of Mrs. W. R. Morrison, the president.

Effective, Convenient and Economical

THE effectiveness of Mercurochrome has been demonstrated by twenty years' extensive clinical use.

For the convenience of physicians Mercurochrome is supplied in four forms—Aqueous Solution for the treatment of wounds, Surgical Solution for preoperative skin disinfection, Tablets and Powder from which solutions of any desired concentration may readily be prepared.

MERCUROCHROME

(H. W. & D. Brand of dibrom-oxymercuri-fluorescein-sodium)

is economical because solutions may be dispensed at low cost. Stock solutions keep indefinitely.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

Mercurochrome is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

Literature furnished on request

HYNSON, WESTCOTT & DUNNING, INC.

BALTIMORE, MARYLAND

COOK COUNTY GRADUATE SCHOOL OF MEDICINE

(In Affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two weeks intensive course in surgical technique with practice on living tissue, every two weeks throughout the year. General courses of one, two, three and six months. Clinical Courses; Special Courses.

MEDICINE—One month course in Electrocardiography and Heart Disease starting the first of every month, except December.

FRACTURES & TRAUMATIC SURGERY—Informal Course available every week.

GYNECOLOGY — Informal Clinical and Diagnostic Courses every week.

OBSTETRICS—Informal Clinical Courses every week.

OTOLARYNGOLOGY — Clinical and Special Courses every week.

OPHTHALMOLOGY—Informal Clinical Course every week.

ROENTGENOLOGY—Courses in X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy every week.

UROLOGY—Two Weeks Course and One Month Course available every two weeks.

CYSTOSCOPY—Ten Day Practical Course every two weeks.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES.

TEACHING FACULTY * ATTENDING STAFF OF COOK COUNTY HOSPITAL.

Address: Registrar, 427 South Honore Street, Chicago, Illinois

Anniversaries of Progress . . .

SULFADIAZINE

Lederle

ONE YEAR AGO *Lederle* made available to the medical profession a new sulfonamide which represented at that moment the highest development achieved by synthetic chemists in their search for perfection in the sulfonamide field. During that year "SULFADIAZINE *Lederle*" has been hailed throughout the civilized world—the world of free peoples and free scientists—as a medicament of unusually low toxicity, exceptionally high effectiveness and uncommonly broad applicability. Sulfadiazine is a "drug of choice" in many instances.

TWO YEARS AGO physicians in the United States, Canada and England were investigating "SULFADIAZINE *Lederle*" with the keenest interest. The most concentrated study yielded results that exceeded all previous expectations. The names of these physicians was a roster of the great in medicine.

THREE YEARS AGO the chemical and pharmacological investigations upon this new drug were being conducted with exceptional intensity by the Lederle-American Cyanamid research group. The brilliant collaboration of synthetic chemists and pharmacologists established the firm foundation upon which the structure of the final product was reared.

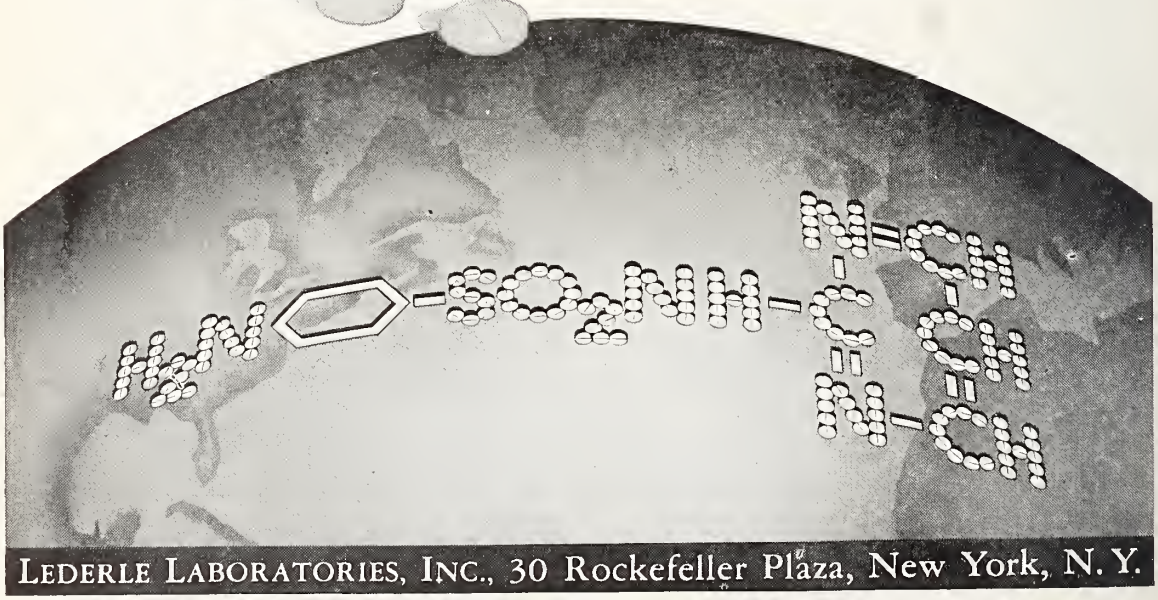
FUTURE YEARS will yield many such anniversaries of scientific progress for the benefit of mankind. We pledge ourselves to the future development of chemotherapy and we shall judge our success by the recognition given to the services we render for the masses of common men.



PACKAGES:

"SULFADIAZINE TABLETS *Lederle*"
Bottles of 50, 100, 1,000 tablets—0.5 Gm. (7.7 grains) each
Sterile Powder: Bottles of 5 Gm.

"SODIUM SULFADIAZINE STERILE *Lederle*" (Powder)
Bottles of 5 Gm.



LEDERLE LABORATORIES, INC., 30 Rockefeller Plaza, New York, N. Y.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 35 DECEMBER, 1942 NUMBER 12

THE KENNY TREATMENT OF INFANTILE PARALYSIS

GEORGE J. GARCEAU, M.D.*

CARL MARTZ, M.D.*

PAUL REITH, M.D.*

Indianapolis

The treatment of infantile paralysis for many years has been directed at the prevention of deformities by rest, splints and braces. Rest in splints for months after the onset of paralysis was based on the fact that the disease destroyed or injured nerve cells in the anterior horns of the spinal cord. It was believed that if the nerve cell would regenerate a neuron, it would best do so if the affected part was placed at rest and properly splinted. This, of course, was symptomatic treatment. If a deformity occurred, it was believed due to the stronger muscle pulling and overcoming the weaker. Contractures were well recognized, such as the short Achilles tendon and the firm, inelastic and atrophic gastrocnemius muscle, opposing the weakened or flaccid anterior leg group of muscles. However, many surgeons had witnessed the recovery of strength in the anterior group of leg muscles after lengthening the Achilles tendon. This was undoubtedly due to the correction of the mechanical pull on the anterior group, which allowed them to function under more favorable conditions. Unfortunately, the treatment was directed at certain symptoms which were interpreted erroneously. Distinction was not made between the primarily affected muscle and the muscles affected secondarily, and in muscle training, substitution was often encouraged in the treatment which resulted in incoördination of muscle function. Those three factors were important causes of disappointment in the treatment. Rest, splinting and braces were so well established in the treatment of the after-effects of infantile paralysis that the profession was very slow in accepting any form of treatment which did not include them. It, therefore, is now necessary to forget our former conceptions of the symptoms and treatment of the disease and after-effects in order properly to evaluate the now rather poorly understood Sister Kenny treatment.

The Sister Kenny treatment of infantile paralysis is based on an entirely new interpretation of the symptoms. Briefly she directs your attention to three symptoms, muscle "spasm," "incoördination" and "mental alienation."

"Spasm" is present in the muscles primarily affected by the disease. The spasm may be of very short duration if the anterior horn cells have been hard hit, but it may also last for weeks and finally result in a permanent contracture due to fibrosis of the muscle mass. The muscle in spasm is tender and attempt to contract or stretch the spastic muscle is very painful. We have found spasm to exist almost universally from head to heels, the neck, spine, hamstring muscles and gastrocnemius especially. We have also noted the picture of spasm to change from day to day in the acute phase and often to progress both in extent and degree. If the muscle spasm is not relieved, contracture will occur. The spasm shortens the muscle fibers, diminishes the blood supply and finally fibrosis occurs which results in a hard, inelastic fibro-muscular mass. This mass is not receptive to stimuli and results in deformities. If the spasm is relieved the muscle will soften, and if the injury is not permanent the muscle is a receptive one and function will return.

"Incoördination" is due to the loss of muscle function, either temporary or permanent. It is the abnormal use of muscles to perform functions for which they were not designed, or the use of a muscle improperly to perform a movement for which it was designed. The use of the pectoralis major and subscapularis muscles in attempted abduction of the arm at the shoulder is an example of the first type. The pulling of the hamstrings

* James Whitcomb Riley Hospital, Indiana University School of Medicine, Indianapolis, Indiana.

from their proximal attachments to flex the knee illustrates the second group. It is evident that unrestricted voluntary movements are to be discouraged. Well-supervised movements and muscle training is essential. It is easier to begin proper use of muscles early than to attempt to break an incoördinate pattern after it is established.

"Mental alienation" is the term given by Miss Kenny to the flaccid muscles which are usually the muscles opposing those presenting spasm. There is no organic block in the neuro-muscular mechanism. It is true that in segmental destruction of anterior horn cells flaccidity may rapidly follow spasm diffusely, and in such a patient the flaccidity will be permanent. We believe that segmental paralysis is fortunately fairly rare. Miss Kenny believes that the flaccidity of "mental alienation" is due to several factors but probably the pain in the muscle in spasm is the most important. The tone or pull of the normal muscle against the muscle in spasm increases the pain and therefore the normal muscle is thrown out of function or conscious mind. The pulling of the spastic muscle may also pull the normal muscle until it is fatigued and, therefore, becomes flaccid at least for a short time. We have seen the anterior tibial muscle recover in a few weeks after the spasm in the gastrocnemius had been relieved. Strength in the anterior tibial muscle will often recover years after the onset, following lengthening of the Achilles tendon which allows shortening of the anterior tibial muscle. It can then be seen that palsy can occur and be permanent even though there is only a physiological block and no organic block of the neuro-muscular mechanism. This is an entirely new interpretation of the cause of flaccidity in some of the muscles. It is a secondary involvement of muscles not primarily affected by the destruction or injury of nerve cells.

The Kenny treatment of infantile paralysis is most efficient when started at the onset of the symptoms. It is designed for the acute phase of the disease and must be started in isolation. If treatment is delayed until after the period of isolation is over, great damage may have taken place and an irreversible pattern of spasm, contracture, mental alienation and incoördination may result. The treatment is not merely one of hot compresses, blankets or fomentations. It is a system which entails great meticulous care of details. It means coördination between physician, nurse, and physiotherapist. A knowledge of the fundamentals which Miss Kenny is teaching is necessary. It is best accomplished by well-trained nurses and physiotherapists, trained in the Kenny Methods.

The first objective in the treatment is to relieve the spasm. Hot fomentations are used. The packs are made of part-woolen blankets, cut to fit the various parts of the body. These are boiled, wrung twice through a wringer and applied quickly to the various parts of the body. Usually the packs are changed at two-hour intervals and five or six packs are used daily. The joints are never covered with the packs except the hands. If there is great pain or the muscles of respiration are involved, the packs may be renewed every ten or fifteen minutes. For the details of the treatment we refer you to Miss Kenny's book and to the booklet on *The Kenny Method of Treatment for Infantile Paralysis* by Cole, Pohl and Knapp (distributed by The National Foundation for Infantile Paralysis, Incorporated) and reprinted in part in this issue.

It is interesting to observe the changes which occur in the patients treated and to postulate on the reasons for the changes. Practically always the patients say they are more comfortable after a few such packs. The spasm, especially in the extremities, is rapidly reduced and the associated pain relieved. The back muscle spasm seems to be more resistant but also relaxes. With the spasm and pain gone the patient is usually no longer fearful and coöperation is the rule. We have used the fomentations during the hot summer weather. Extra fluid and salt was provided during this period. Mean temperature rises were not significant except in a few cases. Skin eruption and boils have been rare complications and have been accompanied by history of previous trouble. Only one case of sensitivity to wool was encountered, and this was in an attendant.

Tendon stimulation, the second principle in the Kenny Treatment, should be started immediately to the alienated muscle and to the spastic muscles as soon as they are relaxed. It must be emphasized that tendon stimulation in no way resembles muscle examination. Muscle examination and evaluation has no place in the treatment because it may encourage incoördination. Muscle stimulation is a difficult procedure in our experience. It is difficult to teach to technicians and especially to parents when treatment has to be done at home under supervision. The full coöperation of the patient is necessary. It has been noted that young children who have a short attention span and patients of the lower mental ratings are more difficult to deal with. One of our greatest difficulties has been the transition from coördinated table work to coördinated upright function. This phase of treatment, including stabilization sequences and locomotion needs development and, in our hands at least, represents a poorly understood portion of kinesiology.

Our observations may be summed briefly as follows:

1. Patients are rapidly made more comfortable.
2. Pain is quickly relieved.
3. Deformities are usually prevented, often relieved and certainly never increased.
4. Deformities may arise from persistent spasm, incoördination or substitution patterns and faulty body mechanics resulting from paralysis.
5. So-called "non-paralytic cases" should be treated vigorously with hot fomentations to

relieve spasm and prevent subsequent contractures.

CONCLUSION

Our general conclusion is that the group of Kenny treated patients is, as a whole, much better than any group treated by us by other methods in previous years. With more experience for the professional group treating these patients it is reasonable to believe that even better results will be obtained. A large series of patients so treated will be necessary to critically evaluate the method. It appears that the patients so treated will, in many instances, still need braces and surgical assistance, but the condition of the patients will be much better for such aids than if they had been treated by the old method of rest, splints, and other forms of physical therapy.

REPORT OF RESULTS IN KENNY METHOD

SISTER ELIZABETH KENNY
MINNEAPOLIS, MINNESOTA

In presenting this paper I should like to be as brief and explicit as possible. In reference to the pathology of the disease there is no dispute; it is accepted that the virus attacks the anterior horn cells.

The next consideration is the symptomology. This is entirely different and, in fact, just the opposite to that generally accepted throughout the world, and, for the sake of comparison, may be presented by the following extracts: Statement number 1, Orthodox, is an extract from the *Public Health Bulletin*, No. 242, U.S.A., published the year of my arrival, 1940, and reads:

> "The damaged nerve cells are in the cord inaccessible to any form of treatment, their recovery being based on the character and degree of injury they have sustained. At this point appears the importance of the muscle, a tissue in no way directly attacked by the virus, but rendered as useless by its loss of innervation, as an automobile with its battery stolen. The muscle undergoes certain degenerative changes, the most important of which is its loss of tone or state of tension, so that instead of being taut and elastic it is relaxed, easily stretched and sagging like a hammock between its points of origin and insertion."

Statement number 2, Kenny, (a) is an extract from the report of Dr. Wallace Cole, professor of Orthopedic Surgery, University of Minnesota, and Dr. Miland Knapp, professor Physical Therapy, University of Minnesota, and reads:

> "Miss Kenny has presented ideas which are new to us in the symptomology and treatment of infantile paralysis. . . . .
>
> "According to this concept the cardinal symptoms of infantile paralysis are to use her terms muscle spasm, muscle incoordination and mental alienation. This is opposed to the usual concept where the cardinal symptom is flaccid paralysis without spasm or incoordination. The presence of spasm has been demonstrated in 100 per cent of the acute cases observed in this study."

(b) A Statement made by Dr. Frank Krusen, professor of Physical Therapy, Mayo Clinic, and reads:

> "Her ideas are original and she should be given full credit for having developed a new and extremely interesting concept of the symptoms of early poliomyelitis and the proper management of these symptoms."

Thus it will be seen that the Kenny concept of the symptoms presenting themselves in this disease are exactly the opposite to that previously accepted.

The next consideration is treatment. As the treatment for the symptoms presenting themselves in this disease has been so frequently and erroneously described as hot pack treatment with passive movements, I consider in the interests of humanity that there should be no attempt made to describe this treatment without suitable illustrations and an accurate and detailed description given of the whole procedure. As this is being done in book form, I will refrain from giving any description here.

The results of treatment from the orthodox concept has been published by Dr. Henry R. McCarroll, of St. Louis. Dr. McCarroll claims to have given a fair and honest trial in the patients treated by the orthodox method, having secured a technician especially trained by Mr. Kendall, of Baltimore, to carry out the orthodox procedures and arranging for Mr. Kendall to pay periodical visits to the institution in order to check up on the work. The results of this investigation reads as follows:

	Percentage of normal recoveries
"Group 1. Immobilization 1 to 4 months. No physical therapy.	9%
"Group 2. Immobilization 1 to 3 months. Physical therapy 3 to 6 months.	0%
"Group 3. Immobilization 4 to 18 months. No physical therapy.	2%
"Group 4. Immobilization 3 to 12 months. Physical therapy 8 to 24 months.	13%
"Group 5. No treatment.	17%."

It will be seen from the statistics quoted above that the highest percentage of recoveries was obtained

when the patient did not receive any physical therapy treatment.

The first report on the results obtained in the Kenny treatment appeared in *The Journal of the American Medical Association*, June 7, 1941, and was presented by the investigators Drs. Wallace Cole and Miland Knapp, University of Minnesota Medical School. In this report it is stated that there were 55 per cent full recoveries in 32.6 days. The second report was presented by Dr. Robert Bingham, of the Orthopedic Hospital, New York. This was a report on a series of control cases and reads:

"I. 'Orthodox Treatment'—absolute bed rest with immobilization by means of splints or plaster casts and shells for protection of weak and paralyzed muscles, prevention and correction of deformities, and physical therapy and muscle training.

"II. 'Orthodox plus Kenny Treatment'—substitution of the Kenny methods on patients who had received the classical treatment at onset of their illness and for some period of time.

"III. 'Kenny Treatment'—for symptoms in the acute stage: bed rest and hot moist fomentations for muscle spasm, passive motion to restore awareness in mental alienation, and muscle re-education for muscle incoordination and recovery of muscle power."

The average duration of hospitalization in the three groups:

"Group I. 16 months.
Group II. 9 months.
Group III. 6 months."

"Estimated results of treatment:

	'Orthodox Treatment' 12 patients	'Orthodox plus Kenny' 24 patients	'Kenny Treatment' 24 patients
"Patients with residual paralysis (Muscle groups fair or less)	10 87%	14 58%	8 33%
Number of braces needed.... (Some patients use several)	19 braces	10 braces	6 braces
Patients needing braces or surgery	6 50%	8 33%(?)	4 16%(?)
Patients with deformities	9 75%	6 25%(?)	2 8%(?)
Functional result: Excellent	1	6	11
Good	3	8	10
Fair	4	7	3
Poor	4	3	0 "

The results and percentages of recoveries in the orthodox group are identical with that obtained in the McCarroll group. As these investigations were being carried out without the knowledge of one to the other, it is most interesting to note the similarity in the results of the orthodox procedures. The best result recorded by Dr. McCarroll by orthodox procedures was 13 per cent. In the New York cases excellent results were obtained in one case out of twelve in orthodoxy and eleven out of twenty-four in the Kenny method. This also compares with the average obtained by Dr. McCarroll. The average all-round in the Saint Louis group was 12 per cent and the average obtained by the Kenny method is generally around 78 per cent.

SUMMARY

It will be seen by the above statistics that 66 per cent more are restored to normal by the treatment for the Kenny concept than the method devised for the orthodox concept. This means that the crippling effects are much more frequently caused by the muscle condition than by the destruction of the anterior horn cells. With good physical therapy residual paralysis remains only in from 12 to 15 per cent instead of 87 per cent.

RESEARCH

The value of research in any disease that has not been conquered by medical science is indisputable. However, the statistics quoted above prove the great necessity of the distribution of the knowledge of the prevention of the crippling and deforming effects of this disease in the citizens of the United States of America who have had the misfortune to contract the disease, both adults and children. At the same time I think that a teacher of this method should be associated with the Medical School of the University of Minnesota for at least two epidemics in order that he may become familiar with the disease in the acute stage in all its varied phases. The clinical research carried out by myself has added materially to the knowledge of the symptomology of this disease and a scientific treatment for these symptoms. This knowledge has prevented the crippling of an average of almost 80 per cent of the victims; therefore, it is of great value. Scientific research is necessary to help the remaining 20 per cent.

813 University Avenue, S. E.
Minneapolis.

ABSTRACT: CONTROL OF TUBERCULOSIS UNDER CONDITIONS OF WAR

"Control of tuberculosis under conditions of war challenges all available resources. The medical history of World War I reveals to us how mortality rates for tuberculosis increased greatly during the war and some years thereafter, especially in Europe. The massing of armed forces for training purposes, mixing individuals from areas of high tuberculosis prevalence with those from areas relatively free of the disease, confronts the military establishment as one problem in tuberculosis control. The concentration of families of industrial workers in defense and cantonment areas, under unhygienic living conditions where sanitation is limited or absent, presents another terrific public health problem. Unless national efforts are directed towards combating these specific factors in the tuberculosis problem, we may well expect an upward trend rather soon in the tuberculosis mortality curve for the United States, which has had a beautiful downward trend from 114 per 100,000 per year in 1920 to 45.9 in 1940."—Herman E. Hilleboe, M.D., P.A., surgeon-in-charge, Tuberculosis Control, States Relations Division, United States Public Health Service.

THE KENNY METHOD OF TREATMENT FOR INFANTILE PARALYSIS†

WALLACE H. COLE, M.D.*
JOHN F. POHL, M.D.**
MILAND E. KNAPP, M.D.***
MINNEAPOLIS, MINNESOTA

Since June, 1940, The National Foundation for Infantile Paralysis has sponsored a study of the Kenny method of treatment for infantile paralysis at the University of Minnesota Medical School, under the direction of the Departments of Orthopedic Surgery and Physical Therapy.

Miss Elizabeth Kenny has been in personal charge of the work except for an interval in the late winter and spring of 1941 when she returned to Australia. In her absence the work was continued by her assistant, Miss Mary Stewart Kenny.

The original observational ward was established in June, 1940, at the Minneapolis General Hospital by special grant of the Board of Welfare of the City of Minneapolis on the recommendation of the hospital staff. Since July, 1941, wards have been made available at both the University of Minnesota Hospital and the Minneapolis General Hospital.

In January, 1941, after the first period of observation, a preliminary report to the National Foundation was published, with some deletions, in *The Journal of the American Medical Association* of June 7, 1941. The authors said:

> "We think it is possible and appropriate to state definitely that these patients with acute infantile paralysis are much more comfortable and cheerful during the acute stage than are those cases who are immobilized and that we have seen absolutely no contractures . . . following this treatment. Even the most severely paralyzed patient has passively full range of motion in all his joints. No scoliosis or other spinal deformity has developed in these cases and most of them are more limber than they were before the onset of the disease . . . and we believe that the paralysis is less severe than would be expected in nearly every case. Certainly no harm has resulted in any of the observed cases under Miss Kenny's care from 'abandonment of immobilization'."

The final conclusion at that time was that the Kenny method would be the basis for the future treatment for infantile paralysis. Further study and observation have shown these conclusions to be correct.

With the belief that more general use of the method is advisable, this manual has been designed. It gives the basis for the treatment and a certain amount of the detail of the technique of the method as applied by Miss Kenny.

Nothing occult is involved in her method but it does demand an intimate knowledge of muscle anatomy, the neuromuscular system and much attention to detail in re-education. The principles can be quickly learned by the physician but the technical practice of the method requires mastery of many details if satisfactory results are to be obtained. Just who is best qualified to do this is probably debatable, but certainly graduate nurses and registered physical therapy technicians are the two groups from which most of the workers should come.

The treatment must be begun as soon as the case is diagnosed if it is to be most efficient; this means that treatment must begin in the acute stage during the period of quarantine. Each hospital will have to develop a routine devised to make the maximum use of its available skilled personnel. Certainly the most difficult part of the treatment from the physical point of view, the application of hot packs, can be efficiently carried out by intelligent attendants or orderlies after a short training period. *Always, however, the treatment must be supervised and checked by the physician in charge of the case.* Certainly the re-education of disabled muscles can be done only by technicians with the highest skills and abilities.

SYMPTOMATOLOGY

The concept of infantile paralysis on which Miss Kenny's treatment is based is fundamentally different from that heretofore prevailing. The disease in the acute stage affects not only the anterior horn cells but also adjacent portions of the cord. It may be segmental in character, involving the central nervous system including the sympathetic system in general so that symptoms other than those due only to involvement of the anterior horn cells must be present. The symptoms, as pointed out by Miss Kenny and as observed by us, are mainly:

1. The muscles affected present the condition of spasm.
2. The affected muscles become shortened.

† This is a condensed article reprinted from a booklet prepared under the auspices of The National Foundation for Infantile Paralysis, Inc.

* Professor of Surgery and Director of Division of Orthopedic Surgery, University of Minnesota.

** Clinical Instructor of Orthopedic Surgery, University of Minnesota; Director of Infantile Paralysis Clinic, Minneapolis General Hospital.

*** Clinical Assistant Professor of Radiology and Physical Therapy and Director of Training Courses in Kenny Technique, University of Minnesota.

3. Coordination is disorganized and incoordination frequently seen.
4. The patient frequently loses power in non-affected muscles because affected muscles are pulling the non-affected muscles from their normal resting place and retaining them in this lengthened position through the unrelaxed spasm in the affected group.
5. The non-affected muscles frequently refuse to contract due to "mental alienation."

These symptoms may be condensed into the three factors which distinguish the Kenny concept of infantile paralysis:

1. Muscle spasm
2. Incoordination
3. "Mental alienation."

In an exceedingly severe infection, enough anterior horn cells are destroyed at the outset to cause complete flaccid paralysis of certain muscles or parts and spasms, if present at all, may be fleeting in these cases. Treatment for this condition is ineffective in preventing the paralysis.

MUSCLE SPASM

The term "muscle spasm" denotes a group of symptoms including fibrillary twitchings (fasciculation), hyperirritability of the muscle to stretching and a more or less tonic state of contraction of the muscle fibers which frequently cannot be overcome even by great force. The exact pathological significance of these symptoms is not well understood at present although physiological studies indicate that there are neuromuscular mechanisms which could produce the observed symptoms. Some reports of late pathologic changes in muscle have been published, but apparently there have not been published studies on the local pathology of muscles during the acute stage of infantitle paralysis.

Examination of the patient acutely ill with anterior poliomyelitis brings strikingly to attention that he suffers from something more than weakness of muscles. Rather are the affected muscles painful, tender, irritable and in spasm. Probably this acute process in the muscle bears an important relationship to the deforming fibrotic changes in muscle common in the chronic stages of the disease when ineffectively treated in the acute stage. It follows that the treatment of poliomyelitis must begin immediately with the onset of the disease, if grievous after-effects are to be avoided.

If unrelieved, spasm will result in destruction of muscle tissue and in eventual permanent changes and deformities. Hope of restoring function to the damaged motor mechanism depends upon keeping the muscles soft, long and receptive through the prompt relief of this spasm. Muscle spasm will cause, beside the actual damage to the muscles affected, further disruption of the motor system by eliminating or "alienating" non-affected muscles and will produce incoordination of the muscles concerned in the joint motions of the region involved.

A muscle in spasm is a muscle attempting to shorten itself. The effect of this on the limbs of the patient early in the disease is known. Temporary contractures appear, which if unattended soon develop into fixed deformities. The spasm might even indicate an inflammatory condition of the muscle, as the process appears with the onset of symptoms of the disease and continues if untreated until the muscle is reduced to a fibrous inextensible mass. Examination of a patient who has not been treated for spasm leads to the conviction that the patient suffers frequently from stiffness and contractures, rather than from paralysis or weakness. The shortening of muscle from the process of spasm is the cause of the deformities. Muscle is normally an elastic tissue and depends for its function upon the property of being able to lengthen and contract itself. If the muscle is allowed to become short through spasm or any other process its useful power is definitely lessened. Furthermore, inability of a muscle to lengthen imposes a severe restriction on the action of its opposing muscle.

Muscles untreated for spasm do become permanently shortened and fibrosed. Active spasm is associated with pain and hyperirritability of the muscle. Sudden stretching of the muscle affected, it will be observed, is followed by an attempt on the part of the patient to relieve the tension in the muscle. For instance, if the gastrocnemius is in spasm, an attempt at forced dorsiflexion of the foot will be followed by flexing of the knee to relax the gastrocnemius. The attempt to keep a hyperirritable muscle under tension, as in a cast or splint, induces a stretch reflex which further increases the spasm and adds to the damage in the muscle tissue. Active spasm, if untreated, evolves into a state of chronic contraction and finally results in fibrosis and fixed contractures. With treatment the active stage of spasm can usually be made to subside within a short time, but the tendency of the affected muscle to remain in a state of contraction may continue for weeks or months. Treatment, however, must be persistent until all stiffness has been relieved and the muscles restored to their full length, as evidenced by full and complete range of joint motions. If proper treatment is applied there will not be deformity and the muscles will be preserved in a soft, flexible state, receptive to nerve impulses. Spasm at times may recur after apparent recovery if coordination has not been restored and will require additional treatment.

The principal locations of demonstrable muscle spasm in approximate order of frequency are:

1. Hamstrings
2. Back and neck
3. Posterior calf muscles
4. Pectorals
5. Muscles of respiration
6. Quadriceps
7. Biceps of the arm.

Spasm is also frequently found in the forearm and anterior leg muscles.

Detection of Spasm

Spasm may be diagnosed by observation alone in many instances through the presence of abnormal skin creases, prominence of muscle bellies or tendons and characteristic positions assumed by the part. Often the physician is able to locate the spasm by observation and palpation without necessarily encouraging any painful motions. The diagnosis becomes obvious when the muscle in spasm is passively stretched. Care should be taken not to aggravate spasm by too frequent examination to demonstrate spasm during the acute stage. The diagnosis should be made by observation alone if possible.

INCOORDINATION

"Incoordination," the second of the major symptoms of infantile paralysis, is principally of two types:

1. That due to the spreading of motor impulses intended for a certain muscle to other muscles or groups of muscles due to such conditions as pain on attempted motion of the involved muscle or inability of that muscle to perform its proper function.

2. That occurring within the involved muscle itself so that ineffective contraction is produced instead of a coordinated rhythmic contraction producing maximum motion at the insertion of the muscle.

Uncontrolled voluntary motion, when attempted in the presence of spasm, leads to the symptom of incoordination by the development of abnormal motion patterns and misuse of muscles. Active motion on the part of a patient unless carefully supervised and directed may do great harm, therefore, and lead to difficulties in securing the return of normal function.

"MENTAL ALIENATION"

"Mental alienation," the third of the major symptoms of infantile paralysis, is the term used by Miss Kenny to describe a condition in which there is inability to produce a voluntary, purposeful movement in a muscle in spite of the fact that the nerve paths to that muscle are intact. This is a physiological block which must be distinguished from the organic interruption resulting from destruction of anterior horn cells by the disease. "Mental alienation" may conceivably be produced in several ways, the most frequent being the following:

1. A muscle is pulled beyond its normal resting length by its opponent which is in spasm.

2. A muscle may become "alienated" when pain is produced in its involved opponent by the attempt of such unaffected muscle to contract.

3. The spasm, or its later results, in an affected muscle may be so severe that the braking action or check on the normal opposing muscle may discourage the latter enough to produce "alienation."

4. The disease may produce changes in the nervous system which do not actually destroy the cells or fibers but do cause loss of conduction power and interference with normal neuromuscular action.

Muscles that are non-functioning due to "mental alienation" may remain permanently in this state unless treated.

An example of "mental alienation" not due to infantile paralysis, frequently seen by orthopedic surgeons, is the inability of some patients to contract the quadriceps after a knee operation or other painful lesion of the joint. Sometimes re-education is needed for a prolonged period before normal control of the muscle is obtained in these cases.

TREATMENT

The Kenny treatment should be begun as soon as the diagnosis of infantile paralysis is made. The patient is put to bed on a firm mattress with bedboards placed beneath it. A footboard is used which extends from eighteen inches to two feet above the level of the springs to assist in keeping the bed clothes off the patient's toes. This foot board is propped away from the end of the mattress by 4" wooden blocks. The purpose of the foot board is to allow the patient to maintain the normal standing reflexes during his stay in bed and it is not in any sense a splint. The mattress is separated from the foot board so that the heel can rest against the board when the patient is lying on the back, and the toes can project below the mattress when he is lying on his abdomen. The patient is placed in bed in a position as closely approximating the normal standing position as possible with the body straight, the arms at the sides and the legs in a straight line. A folded towel or small pad may be used under the knees to prevent hyperextension. If spasm is severe, modifications of this position may be necessary to allow relaxation of the spastic muscles. For example, with a severe spasm of the back causing hyperextension of the spine, the patient may be placed on the abdomen with a pillow under the chest and under the pelvis, or on the back with a pillow in the lumbar region to exaggerate the deformity and thereby allow relaxation of the muscles involved. If there is active spasm in the posterior calf muscles, the foot is not put in contact with the foot board until the spasm has been released.

SPASM

As soon as spasm is diagnosed, treatment should be started by the use of hot fomentations which are prepared in a manner somewhat different from the usual procedure. Woolen cloths such as old blankets are cut to fit the parts accurately so that there will not be too much bulk by folding, but so that there are two thicknesses over each area to be treated. A light waterproof covering is used

and around this a piece of dry woolen material of appropriate size and shape is wrapped and pinned in position. These outer coverings are spread out and placed accurately in position under the area to be treated before the hot flannel is removed from the container.

The foments are boiled and wrung from the boiling water twice through a very tight wringer at the bedside so that as much water as possible is removed. They are then applied directly and as quickly as possible on the part so as to minimize any chance for cooling. It is well to use old wool for the wet packs because new wool seems to be more irritating to some patients. It is unnecessary to protect the skin with ointments although some patients show sensitivity to the application of wet heat by a skin rash, but burns should not occur. The packs are placed accurately over the entire muscle and care should be taken to make them of adequate size since the wool tends to shrink from the boiling.

Joints should not be covered by the packs because of the resultant limitation of motion and increased difficulty of treatment unless the involved muscle itself covers a joint, as for example, the deltoid covering the shoulder joint. In the hand and foot, of course, joints are necessarily covered because of the small area involved. The packs do not in any way constitute splints and they must not give the patient any sense of fixation. They are renewed usually every two hours, but may be applied as often as every fifteen minutes when the spasm is unusually acute or threatens the life of the patient, as in involvement of the muscles of respiration. In such a case the wet packs may be used without covering. The packs are continued uninterruptedly being changed as indicated throughout twelve hours of each day. The alternate heating and cooling of the parts as accomplished by these packs seems to be the factor which tends to overcome spasm.

Passive motion through the range that can be obtained without pain is carried out at least once a day but care should be taken not to aggravate spasm by too frequent examination.

The Kenny technique does not permit muscle testing or the use of respirators. Muscle testing, which incidentally has never been accurate in the acute stage of infantile paralysis, is definitely dangerous because of the likelihood of exaggerating spasm, or of producing incoordination and "alienation." The respirator is not used because its mechanical action in pulling on the ribs tends to aggravate the spasm in the intercostal muscles and because the treatment in the cases in which spasm is the cause of respiratory difficulty, should be by hot foments. The cases in which the higher centers are involved are not benefited by either treatment, and may be definitely damaged by the use of the respirator.

MUSCLE RE-EDUCATION

The Kenny method of muscle re-education is based on the symptoms and concept of the disease previously described.

First, it is assumed that nerve cells are not permanently or completely destroyed until failure of the muscles supplied by those cells to respond to treatment indicates that destruction has occurred.

Second, in addition to anterior horn cell destruction the lack of function is considered to be also the result of loss of connection with the central nervous system either through "mental alienation" by which the impulse is suppressed, or through incoordination by which the impulse is diverted to other channels, or both.

The purpose of re-education is to restore connection of the part with the central nervous system, (to restore "mental awareness"). Muscle strength is not a primary consideration but the re-establishment of "awareness" and the production of a normal rhythmic motion, no matter how weak, is the aim of the treatment. Increase in muscle strength will follow. Muscle testing in the form of attempts to determine muscle strength by isolated action of individual muscles is avoided because of the danger of producing or increasing incoordination and "alienation" as well as spasm.

The neuromuscular system is highly specialized. Although each muscle has a definite primary action, which is a direct pull upon its insertion, it rarely acts alone because of the integration and cooperation of the adjacent muscles. When a joint is moved in any specific direction a number of related muscles come into play. However, there is usually one muscle which is primarily responsible for any given motion and this muscle can be known as the prime-mover of the joint in that particular direction. One must also remember that for each motion performed by a muscle there is an opposite motion performed by an opposing muscle and that the effective function of a joint depends upon the orderly regulation of these opposing units by the controlling nervous system. When a flexor begins to contract the extensor must simultaneously elongate in a graduated manner so that smooth action of the joint results. The elongating muscle must retain at all times a certain amount of tonus so as to be able to contract immediately and reverse the joint motion. This harmonious action which allows a smooth, orderly and effective functioning of muscles is well referred to as coordination. The disappearance of a particular muscle action from the motor scheme, whether due to direct involvement of the innervation of that muscle by the disease, to indirect involvement by "alienation," or some other cause, will result in attempts by the adjacent muscles to substitute for the lost motion with the development of incoordination.

In starting muscle training this substitution of muscle action must be completely removed and prevented. Every mental and physical effort of

the patient must be guided to the muscle which is being trained and to that alone. Allowing and even encouraging a patient in the free choice and substitution of muscles for the mere satisfaction of haphazard motion of the joint invites disaster.

Technique of Muscle Re-education: As soon as joints can be moved passively through a small range without pain or incoordination indicating that spasm is lessening, muscle re-education within that range is started with the patient still in bed. At first this consists largely of maintaining or developing a "mental awareness" of the muscles and their insertions. Later, as spasm decreases, the more active re-education can be added. In the presence of incorrect muscle action such as substitution or incoordination, active motions on the part of the patient are prohibited until passive motions can be carried out by the technician with complete relaxation of the patient. Having achieved this state, voluntary motions on the part of the patient may be instituted but such action is always under the control and guidance of the technician. For this later muscle re-education the patient is placed on the treatment table in as normal a position as possible. This is considered to be the usual standing position with the arms at the side, the legs in a straight line with the body, the feet at right angles and the knees straight. The patient must be relaxed and cooperative. Re-education cannot be carried out in babies who are crying, or in children or adults who are fearful of pain or other harm. Therefore, re-education cannot be attempted before painful spasm is eliminated.

Before treatment is started the patient is instructed to lie quiet without using any muscles other than the ones to be treated. His attention must be concentrated solely on the motion to be performed. The technician then firmly grasps the part to be treated and without causing pain carries out the intended motion passively through whatever range is possible without pain. The technician instructs the patient concerning the part to be moved by stroking the exact insertion of the muscle group to be trained. With the patient concentrating on this point of insertion the motion is carried out twice passively and then the patient is instructed to attempt to carry out that motion actively. A muscle, whether paralyzed or "alienated," which is being trained, must be made to contract at least in a mental sense if in no other way; the conscious mind must accept this "awareness" of the muscle if orderly and coordinated action is to be obtained. If any visible or palpable motion is accomplished, the treatment is stopped immediately in order to leave with the patient the memory of the accomplishment. If any muscles other than the one to be trained come into play, the attempted motion is stopped immediately and the unwanted muscles put out of action by instructing the patient to do so or by finger pressure against the muscle. Much care is observed to prevent incoordination, which is shown by this attempt of the patient to bring other muscles into play. Care is taken also not to tire the patient in any way. Treatment must be discontinued if the patient shows evidence of fatigue or is uncooperative for any reason. As the patient learns how to move the muscles, more movements are given, gradually increasing the range and number of motions, although enough work to tire the muscle is never allowed.

If there is no trace of motion in spite of absence of spasm, the proprioceptive reflexes are stimulated by placing the muscle slightly on the stretch and then stimulating the muscle through the tendon by moving the joint backward and forward. This procedure is repeated daily or several times daily even while the patient is receiving hot foments. Miss Kenny has demonstrated that function of that muscle should eventually return if the muscle can be stimulated by this procedure so that the course of the tendon can be followed from its insertion to the muscle belly. "Loss of tendon" which indicates complete loss of muscle tone is an indication of probable permanent and complete loss of function.

For a proper understanding and execution of muscle re-education by Miss Kenny's technique a knowledge of her classification of muscles is necessary.

Group 1. Muscles that contract within their normal resting length.
Group 2. Muscles that have to be removed from their normal resting length before a suitable contraction can occur to perform their primary action.
Group 3. Muscle group with separate origin and common insertion and multiple action.
Group 4. Muscle groups with dual origin and dual insertion and multiple action.
Group 5. Muscles that stabilize positions obtained by other muscle groups.

The first two are most important groups.

The biceps of the arm and the hamstrings belong to the first group and the triceps and quadriceps to the second and one example will show the importance of this classification. The quadriceps, to contract so as to perform its normal action, must first be pulled from its normal resting position by flexion of the knee. Only then can the pull be placed at the insertion of the patellar tendon and the knee extended. The performance of this motion is the primary function of the quadriceps muscle. So-called "setting" of the muscle with the knee extended does not have any place in the Kenny method.

Muscle re-education, then, depends upon the relief of spasm, the teaching of muscle awareness, the combatting of incoordination and "alienation," and the retraining of nerve pathways back to the nonfunctioning muscles.



IS THERE A RELATIONSHIP BETWEEN POLIOMYELITIS AND TUBERCULOSIS? *

(Observations based on case histories of poliomyelitic victims entered at the James Whitcomb Riley Hospital, Indianapolis, from 1925 to January, 1941—993 cases.** Ten random adult cases also included.)

ISABEL MORGAN, M.D.
DANVILLE, INDIANA

The author of this artiele is a post polio and has spent ten years gathering data.

(1.) Is the virus said to be the cause of this disease a form or a part of the tubercle bacillus?

(2.) Why do the majority of poliomyelitic cases in this survey, either post or acute, although coming from the lowest income group, react negatively to the tuberculin test? (von Pirquet, Mantoux, P.P.D.)

(3.) Why do over 50 per cent of the patients come from the rural districts?

(4.) Why do the majority of adults seem to be immune to the disease?

(5.) What can be the relation of the racial factor to poliomyelitic immunology?

(6.) Why is the overwhelming majority of poliomyelitic cases, post or acute, described as being well-developed and well-nourished, normal or healthy individuals?

BACKGROUND OF QUESTION USED AS TITLE

The question used as the title of this article occurred to the author because of certain circumstances present in her own case history.

In October, 1907, a very healthy infant, aged sixteen months, became ill with fever and diarrhea as prominent symptoms. It was also noted that the child was in great pain whenever moved. After the symptoms had subsided, the patient, who had begun to walk before the illness, could now neither stand nor walk. The case was diagnosed as infantile paralysis. The infant was the child of well-to-do parents and had received every care. Hers was the only case noted in a town of twenty-five hundred inhabitants.

On May 4, 1908, the mother of the above patient died following an illness of tuberculosis of a year's duration. The mother had taken care of, or been near the infant, until December, 1907, when she was removed to a sanatorium for a period of four months. She was in the active phase of her disease when the infant was stricken with polio. The last month of the mother's life was spent in the home.

A brother of the infant, ten years her senior, in 1909 was taken to a sanitorium with an active case of tuberculosis. He remained there until the disease was arrested.

In 1912, a second brother, fourteen months older than the author, developed scrofula. At the age of twenty-four he was hospitalized with a case of adult tuberculosis, and in 1942 he was rejected by the United States Army because of the amount of lung tissue destroyed.

* Read before the Hendricks County Medical Society, Danville, Indiana, September, 1942.

** The author is indebted to the Indiana University Medical Center for the 993 case histories used in compiling these statistics.

TABLE 1

REACTIONS TO TUBERCULIN TESTS BASED ON 1003 CASES

(AVERAGE AGE OF TESTING; RILEY GROUP A—12 YEARS; RILEY GROUP B—11 YEARS; GROUP C—27 YEARS)

I-a. General Table

Groups	*Total No. Cases*	*Total Tbc. Tests*	*No. Def. Tbc. Contact*	*No. Quest. Contact*	*No. Cont. No Test*	*No. With No Test Hist.*	*X-ray Report*	*Autopsy*
Riley Group A 1925-40	801	1014	10.6%	11.1%	2.3%	12.8%	3%	4
Riley Group B (Epidemic)	192	164	15%	3.2%	5%	15.6%	5.7%	8
Group C (Random Adult)	10	14	30%	20%	0	0	40%	0
Totals	1003	1192	11.6%	9.8%	3.6%	14%	16%	12

I-b. Table Showing Positive Reactions and Evidence

Groups	Total No. Cases	No. Pos.	No. Def. Tbc. Cont.	No. Quest. Contact	X-rays	Autopsy	Active Cases Tbc.
Riley Group A 1925-40	801	6%	30%	18%	32%	50%	0.25%
Riley Group B (Epidemic)	192	0.6%	0.6%	0	27.2%	25%	0
Group C (Random Adult)	10	7%	0	0	10%	0	0
Totals	1003	5%	17.6%	18%	23%	37.5%	0.2%

TABLE II

GENERAL INFORMATION REGARDING THE ACUTE CASES IN RILEY GROUPS A AND B

No. Acute Cases	Pos. Tbc. Tests	Neg. History Tbc. Tests	History Chr. Amygdalitis	Hist. Previous T&A*	Hist. Recent T&A	Cases Polio Foll. T&A	Chr. or Acute Otitis Media	No. Deaths	Average Age of Death
Riley Group A (167 cases) Acute	3.5% Sporadic Cases	22%	34%	6%	1.2%	1.2%	6%	3.5%	6¼ Yrs.
Riley Group B (Epidemic)	0.6%	15.4%	25%	9.3%	1%	1%	7.8%	12.5%	20 Yrs.

In the year 1933, the infant described in the first paragraph was enrolled in the junior class of the Indiana University School of Medicine. The group of students with whom she worked in the clinics of the Indianapolis City Hospital were given the Mantoux test in the Tuberculosis Clinic. Of the nine or ten students in the group, the author (who is the patient described) had the only negative result. Subsequent tests (1939, 1940, and 1942) have been negative. An x-ray of the chest in 1940 was negative for any type of tuberculosis.

It is surely unusual that a person with three definite familial tubercular contacts, which contacts existed over a period of at least twenty-two years, should escape infection. Could she have been immunized against tuberculosis by the poliomyelitis?

TRANSMISSIBLE HEREDITARY WEAKNESSES

Several authorities, among them Paulis of Spain,[1] have contended that a certain hereditary weakness makes for the disease of poliomyelitis, even as epilepsy, ataxia and chorea. He further states that the poorer class of children presents an overwhelming majority of such heredity. Table III will not support such contentions.

THE SECRET OF ADULT IMMUNOLOGY

Roughly, 90 per cent of adults seem to be immune to poliomyelitis. The average age of infection in Riley Group A was 6.4 years. In the Riley Group B, or epidemic group, the age was eleven years. That of Group C was nine years. Could it be that the small percentage of adults stricken with the disease have never before been invaded by the tubercle bacillus, thus leaving an adult absolutely no antibodies with which to fight off any massive invasion by the disease?

One of the cases in Group C would seem to give a negative answer to the above question. This case gives the history of an insidious onset during the summer of 1941. The patient was in his thirty-seventh year. After feeling badly for several days, he noticed that his feet had developed the "slap-slap" of the polio patient, as he attempted to walk to work. He consulted his physician and was hospitalized with a diagnosis of poliomyelitis. He reports that his Mantoux preceding the illness was

* By "Previous T&A" the author means one performed several years before the poliomyelitis.

[1] *Revista De Hygeine Y De Tuberculosis* **28**:201-204. (Aug.) 1935.

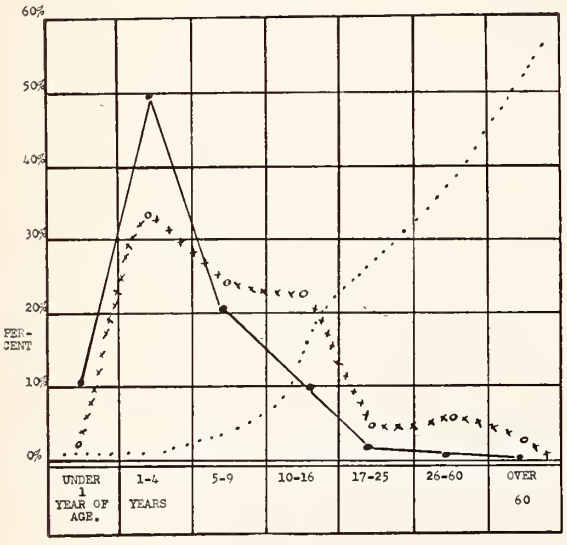
TABLE III

Groups	Cong. Syphil. or Fam. History	Psychometric Rating		Under-nourished	Other Polio In Pts. Family	Illness Suggest. of Abort. Cases	Diabetic Family History	Ca. Fam. Hist.	Pos. Epilepsy Fam. Hist.
		Below Norm.	Moron or Feeble Mind.						
Riley A	0.6%	6.7%	1.37%	7%	1.37%	0.5%	1.12%	1.69%	0.5%
Riley B	1%	not listed	not listed	7.8%	2.9%	4.9%	1.6%	0.5%	1.19%

a positive one, and that a chest x-ray, taken about the same time, showed numerous areas of calcification. He has seemingly recovered except for the fact that the muscles of his legs have lost about one-quarter of an inch in circumference.

It is a known fact that more than 50 per cent, and in closely crowded cities 90 per cent, of the adults have been, at one time or another, infected by the tubercle bacilli. Can we in any way draw a comparison between the high immunity of adults to poliomyelitis, and the high rate of infection by the tubercle bacilli?

CHART I



.—— *Per cent of cases infected at ages indicated. (Riley A)*
oxxx Per cent of cases infected at ages indicated. (Riley B)
..... Per cent of population infected with tuberculosis at ages indicated.

The majority of the patients in the Riley survey are seen by staff doctors over a period of years in the out-patient clinic or as patients in the hospital. Thirty-five per cent of Riley Group A was readmitted for reconstructive surgery, some cases returning three and four times. The majority of the Riley Hospital patients are members of welfare families, and of medium-sized family groups. Most of them attended public schools.

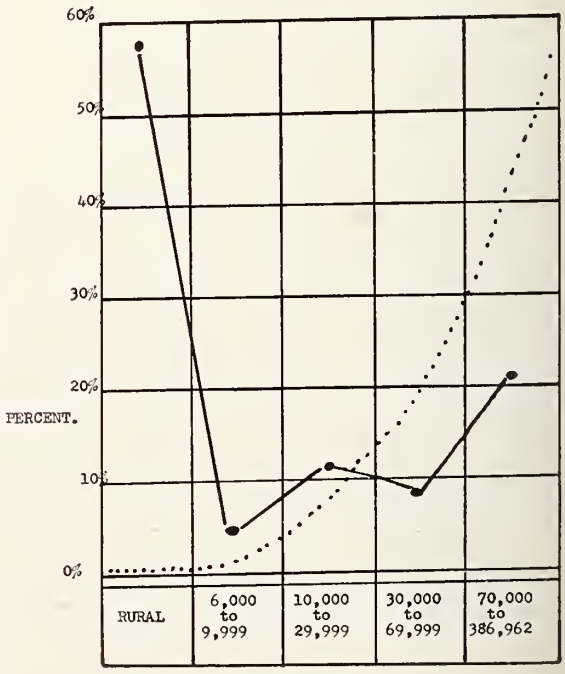
The Indiana State Tuberculosis Association made a school survey in 1941, using the tuberculin test as the indicator. It was found that 17 per cent of the students (6-18 years, inclusive) reacted positively. The survey of the association included all classes. The percentage of positive reactors in this survey amounted to 5 per cent.

PERCENTAGE OF CASES IN RURAL AND URBAN AREAS

The statistics in this survey duplicates to a great extent those of other surveys, in that the largest group of patients come from the rural districts and

DISTRIBUTION OF CASES ACCORDING TO POPULATION

CHART II



.—— *Poliomyelitis*
..... *Tuberculosis*

TABLE IV

STATISTICS CONCERNING THE NUMBER OF CHILDREN IN FAMILY FROM WHICH CASES CAME

Groups	Only Child	1-3 Children	4-5	6-7	8-9	10-11	History Unobtained
Riley Group A	10.9%	46.8%	16.6%	8.3%	3.5%	1.6%	14.3%
Riley Group B	20%	60%	12.8%	6%	2.8%	0.6%	10%
Total	15.4%	53.4%	14.7%	5.6%	6.1%	1.1%	12.1%

small towns. On the other hand, reliable statistics show that the greatest percentage of tubercular infection is found in the larger centers of population.

TABLE V

THE RACIAL AND SEXUAL FACTORS

	Riley A		Riley B	
Race	Male	Female	Male	Female
White	51.3%	48.7%	57%	43%
Negro	53%	47%	0	0
Jew	0	1 case	0	0
Oriental	0	0	0	0

In this survey the sexual factor seems to agree with the observations of others, i.e., that the cases are rather evenly divided among the sexes. The racial factor seems rather important to this author.

Poliomyelitis is a rarity among the Negro race, although it does exist. Twenty-eight cases are present in the survey completed. The twenty-five cases given the Mantoux test were reported as negative. One interesting case is that of a twenty-six-month-old Negro infant, who was admitted to the hospital with a diagnosis of poliomyelitis. Past history states that the child had had pneumonia at four weeks, and also an attack of pertussis preceding the polio. Eight months following the polio the same child was readmitted with a tubercular synovitis of the knee. Two months later the patient died of a tubercular meningitis.

In this survey, only one case was noted among the Jewish race. This was a case of paralytic scoliosis, of a girl aged twelve years, age of infection unknown. She has a record of three admissions to the hospital: at twelve, again at thirteen, and finally at the age of fourteen. Mantoux tests were done on each admission and the report was negative each time.

In reference to the Jewish case, it is interesting to note the observations of Dickey,[2] of California. He says that the incidence of tuberculosis in the Jewish race is high, while the mortality is low. He explains this as follows: The Jewish race is the oldest civilized race in the world. The Jews have migrated from one civilization to another, thus being continuously in contact with tuberculosis, and this has given them a higher immunology to the disease than that which any other race possesses. Tuberculosis runs a mild course in the Jewish race. If poliomyelitis is a form of tuberculosis, it could hardly be classed as a mild one.

Poliomyelitis is also a rarity among the North American Indians and Orientals as well. The morbidity and mortality of tuberculosis is very high in both races.

Dr. Toomey[3] states in a recent survey (1934) of the Orient: "In China, with its teeming millions where dysentery and gastro-intestinal diseases abound, but one case of poliomyelitis is reported by the Peiping Union Medical College in 25,000 admissions." In line with the preceding is the fact that a returned medical missionary, who has spent the last twenty-six years in Manila, told the author that if polio did exist there, it was a rarity and was found only among the white population. Tuberculosis has a high morbidity and mortality in the Philippines.

A question one might well ask himself after reading the above facts is: Can the disposal of the so-called "epidemic poliomyelitis" by the sewage route be so important when sewage and sanitation in the Orient are so far below our standards?

CONSTITUTIONAL CHARACTERISTICS OF CASES

It is interesting to note that the overwhelming majority of polio cases are described as well developed (except for paralyses), well nourished, healthy individuals, having had, in most instances, the usual childhood diseases with good recovery, and show a high resistance to most infection.

A question the author has asked herself repeatedly is: Can polio be a massive form of tuberculosis, somewhat akin to tubercular meningitis, which invades these healthy people who offer up a certain amount of resistance, so that the infection localizes in the spinal cord, causing paraly-

[2] *Ann. Int. Med.* **8**:854-864.

[3] *Arch. Pediat.* **52**:577-583.

sis instead of terminating fatally as a meningitis? An observation which might prove of interest in connection with the above question follows. In 1930, Dr. R. W. Fairbrother[4] of London, England, was interested in experimenting with horses in an attempt to immunize them against poliomyelitis, thus being able to produce an antiviral serum. In the course of the experimentation twelve monkeys were used. Each animal was given the virus via the intranasal route. Eleven of the monkeys developed, in the course of time, poliomyelitis. Paralysis was followed by death. The twelfth monkey was not affected in any way by the virus. Fairbrother reports, "This monkey was found on autopsy to be suffering from an early pulmonary tuberculosis, which might have in some way influenced the result."

In contrast to the above, Dr. Toomey[5] of Cleveland, in the early 1930's, was also experimenting with an antiviral serum. He used a group of twenty-three monkeys to test the efficacy of his serum, and used the gastro-intestinal route of transmission. Several of the monkeys developed mild forms of quadriplegia, paraplegia, and even monoplegia. Only one monkey died, and the doctor states that his had been a sickly, anemic one. It had been shielded as much as possible, but on the sixteenth day it became paralyzed and death ensued the following day. An autopsy was performed and the only thing found was a marked gastro-intestinal enteritis with matting together of the lower portion of the ileum and numerous tubercular enlargements of the mesenteric and intestinal lymph glands. Several extensive tubercular processes were found in the lung.

The monkey that did not die in Fairbrother's case proved to have an early form of pulmonary tuberculosis. Could the antibodies in this animal's blood stream have been strong enough to down the virus, while the monkey in Toomey's experiment was in the last stage of tuberculosis and had nothing to fight with except the small amount of sheep serum which the Doctor had injected?

The author has consulted some two hundred articles listed in the Cumulative Index of the *Journal American Medical Association.* Only one article might be in some way related to her thought. It has been translated from the original Spanish article, and excerpts follow.[1]

"Does There Exist A Certain Etiological Analogy Between Infantile Paralysis And Tuberculosis?"

". . . It is our belief that there exists an etiological analogy between poliomyelitis and certain forms of a bacillary childhood tuberculosis."

". . . Joining this premise, poliomyelitis is, according to us, tuberculosis of the nervous system, selective in character as: tuberculosis of the skin, the bone, renal parenchyma, pulmonary boundaries, etc., the polio originating from the virus of the same lineage as that cultivated by the noted bacteriologist of the celebrated Oswald Cruz Institute of Rio de Janeiro, a virus which attacks preferentially the nerve cells of the body, leaving them destroyed frequently."

". . . There is no greater satisfaction in this respect than that offered by the observations recorded by the Traveling Bureau of Information of the School of Physical Education of Children; there has not existed one case of Poliomyelitis among those children who have been vaccinated with B.C.G. vaccine. . . ."

"And too, in Abrera, first school of Catalonia, where the children were vaccinated en masse against tuberculosis, using the Spanish vaccine, the only child, Antonio P., who contracted poliomyelitis during the small epidemic of July and August, 1934, HAD NOT BEEN VACCINATED."

"Thus are the things of chance. But can it be chance that repeats itself time and time again . . .? It should call our serious attention to the fact that there does exist an etiological relation between tuberculosis and Heine-Medin's disease."

[4] *British Journal Pathology,* **11**:43-54, 1930.

[5] *Proceedings of The Society For Experimental Biology and Medicine* **32**:423.

ABSTRACT: RESEARCH SHOWS MUSCLE SPASM IS PRESENT IN POLIOMYELITIS

Substantiation of the concept of the Australian nurse, Miss Elizabeth Kenny, that muscle spasm "is a damaging and ever present symptom of the disease infantile paralysis . . ." is reported in the July 18 issue of *The Journal of the American Medical Association* by R. Plato Schwartz, M.D., and Harry D. Bouman, M.D., of the University of Rochester School of Medicine and Dentistry, Rochester, New York.

By making graphic records of the electric current produced by muscles in action, the two investigators found that spasm exists not only in the muscle opposite the muscle weakened by infantile paralysis, as contended by Miss Kenny, but it also exists in the weakened muscle itself and in muscles in parts of the body in which clinical symptoms of the disease are not evident.

"Action currents are among the means most suitable for recording extremely minor contractions of muscle. . . . . The rigid principles that define the technic of this method were applied to the study of patients: (1) seven with infantile paralysis, (2) three with spastic paralysis and (3) normal subjects for control. . . . ."

Other conclusions reported by the two investigators are as follows:

"The spasticity is of a reflex nature and is not present in the completely paralyzed muscle.

"The spasticity can be stronger than the voluntary contraction that the muscle is able to perform, as adjudged by action currents.

"When the strength of the voluntary contraction increases through treatment, the spasticity decreases.

"Our investigation has shown that spasticity is present in infantile paralysis. Whether the spasticity is actually responsible for weakening of the muscle or whether it is a phenomenon which is merely another consequence of the disease is a question which cannot be answered at the present time."

TULAREMIA—A REVIEW AND ITS PRESENT STATUS IN INDIANA

J. W. JACKSON, M.D.*
INDIANAPOLIS

HISTORICAL

Following the cataclysmic earthquake and the destructive fire of 1906, cases of bubonic plague began to appear in alarming numbers in San Francisco and neighboring areas. Dr. George W. McCoy, of the United States Public Health Service, was sent to study the situation.[1] Dr. McCoy soon discovered that some of the diseased rodents he was studying did not have the plague although suffering with a "plague-like disease." Neither he nor his co-workers suspected at that time that they were entering the first stages of a dramatic experience destined to reveal a previously unrecognized disease, to crown at least fifty-five new martyrs to science, to suggest effective measures that could, when intelligently applied, alleviate great suffering, as well as avoid prolonged disability, and to place new and valuable weapons in the hands of the practitioner of preventive medicine.

McCoy and Chapin[2] soon discovered the causative bacillus and named it Bacterium tularense. In 1912, Dr. William B. Wherry, of the University of Cincinnati, injected scrapings from the conjunctiva of Dr. Vail's patient into a guinea pig. Using McCoy's coagulated hen's egg medium, Dr. Wherry isolated an organism identical with the one discovered by McCoy and Chapin in California ground squirrels. This was the first instance of the diagnosis of tularemia proved by biological studies. Following the achievement, Wherry demonstrated that a fatal disease of rabbits in southern Indiana and northern Kentucky was caused by Bacterium tularense. As time passed deer-fly fever, Pahvant Valley plague, rabbit fever, Ohara's disease, and alkali disease were one by one proved by bacteriological studies to be tularemia.[3]

DEFINITION

Tularemia is primarily a disease of wild life, secondarily of man. It is a widespread disease, especially among rodents.[4]

THE BACILLUS

Bacillus tularensis, now commonly known as Pasteurella tularensis but designated as Brucella tularensis by some, is a small rod 0.3 to 0.7 of a micron in length and about 0.2 of a micron in width. It is a gram-negative, nonmotile, nonspore-forming, pleomorphic organism changing from coccoid to bacillary or to bipolar forms in accordance with its environment. It grows best on coagulated egg yolk or on blood glucose cystine agar. It is a strict aerobe and an obligate parasite. It stains readily with crystal violet and aniline water gentian violet. It is killed in ten minutes by a temperature of 56 degrees C. to 58 degrees C., and by the ordinary antiseptics. Cross agglutination may occur with Brucella abortus and Brucella melitensis.[5]

EPIDEMIOLOGY

Natural reservoirs of Bacillus tularensis include many forms of wild life, especially rodents.[6] According to Francis, at least 1 per cent of all wild rabbits are infected, and the disease is very fatal to them. Great epidemics may occur. The disease is spread among the animals by lice, ticks, and bloodsucking flies, also by combats between animals or the ingestion of one infected animal by another that is susceptible. The nasal secretions and the urine[7] of infected rodents may also be infectious for other animals. In some instances the germs may apparently be carried mechanically by teeth or claws. Incriminated animals include:[8] jackrabbits, snowshoe rabbit, cottontail, California ground squirrel, wild rat, water rat, meadow mouse, opossum, coyote, sheep, muskrat, cat, woodchuck, black squirrel, hog, skunk and fox. Of the birds the following are susceptible: blue grouse, ruffled grouse, Hungarian partridge, quail, sage hen and goose. The horse, dog, cat, cow, fox, hog, pigeon, turkey and domestic chicken are relatively immune.

Insect vectors[6] of the disease are said to be: the stable fly, deer fly, bedbug, squirrel flea, mouse louse, rabbit louse, wood tick, dog tick, rabbit tick, and possibly the mosquito. Infected ticks transmit the germ through their eggs to the next generation, which remains infectious probably during its entire lifetime.[9, 10]

In humans the disease is especially prevalent among farmers, ranchmen, marketmen, housewives, cooks, hunters, and laboratorians of whom fifty-five have been infected. Cases have been reported

* State epidemiologist.

[1] Holmes, William H.: *Bacillary and Rickettsial Infections*, MacMillan New York, pp. 39-49, 1940.

[2] Manson-Bahr, Phillip H.: *Manson's Tropical Diseases*, Williams and Wilkins Co., Baltimore, Eleventh Edition, pp. 302-306.

[3] Simpson, Walter Wm.: *Tularemia*, Paul B. Hoeber, Inc., New York, 1929.

[4] Birkland, Jorgen: *Microbiology and Man*, Williams and Wilkins Company, Baltimore, pp. 290-293, 1942.

[5] Jordan, Edwin O., and Burrows, William: *Textbook of Bacteriology*, Thirteenth Edition, Revised, W. B. Saunders Co., Philadelphia, pp. 395-397.

[6] Rosenau, Milton J.: *Preventive Medicine and Hygiene*, Sixth Edition, D. Appleton-Century Co., New York, pp. 241-247.

[7] Editorial, Tularemia Infection Found in Streams, *Public Health Report*, **55**:227 (Feb. 9), 1940.

[8] Cecil, Russell L.: *A Textbook of Medicine*, W. B. Saunders Company. Fifth Edition, Philadelphia, pp. 371-375, 1940.

[9] Francis, Edward, and Felton, Lloyd: Antitularemic Serum, *Public Health Reports*, **57**:44-45 (Jan. 9) 1942.

[10] Francis, Edward: Sources of Infection and Seasonal Incidence of Tularemia in Man, *Public Health Reports* **52**:103-113 (Jan. 22) 1937.

TABLE I

TULAREMIA—REPORTED CASES BY COUNTIES

	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Total
Adams														1			2	3
Allen													2	6	2	3	16	29
Bartholomew						1	1	1						2	1			6
Benton															1			1
Blackford																		0
Boone														1	2	2		5
Brown																		0
Carroll								1						6				7
Cass					2							3		2		5	3	15
Clark																		0
Clay														1	2		2	5
Clinton																		0
Crawford																		0
Daviess					3		2									1		6
Dearborn						5				1				1		5	1	13
Decatur														3	2	2		7
Dekalb							2	2							1	2	3	10
Delaware																		0
Dubois						1	2									1	1	5
Elkhart												1		2	1	3	2	9
Fayette															1	1		2
Floyd																	1	1
Fountain							1					1			1		1	4
Franklin													1	2	1	2		6
Fulton														1	3	4		8
Gibson								1					2	2	1	2		8
Grant													1	1		1	1	4
Greene														1	2	2	5	10
Hamilton																		0
Hancock															1	1		2
Harrison								2	1					1				4
Hendricks														2	1			3
Henry													2	2		1		5
Howard														4	1	3		8
Huntington													2		1	2		5
Jackson				1										1	2	1		5
Jasper											1	3	1	1				6
Jay																		0
Jefferson													1	1				2
Jennings														2			1	3
Johnson													3	2	4	2		11
Knox														1	1	1		3
Kosciusko												2	2	2	1	3	1	11
LaGrange																1		1
Lake												2	1	2	3	2	7	17
LaPorte																1	4	5
Lawrence														7	2	2		11
Madison				1									1			1		3
Marion														10	9	9	1	29
Marshall											1		3	1	1	1	1	8
Martin																		0
Miami						1		2		2			1	2	1	1		10
Monroe														2			1	3
Montgomery							3							4				7
Morgan							1											1
Newton																2		2
Noble													1	2	3	2		8
Ohio							1									1		2
Orange														2				2
Owen														2		1	1	4
Parke														1	1		1	3
Perry															1			1
Pike						2	2	2										6
Porter														1	1		1	3
Posey														4		4	1	9
Pulaski								1						1	1			3
Putnam													1	2				3
Randolph														3	1	2		6
Ripley							1							2			1	4
Rush																2		2
Scott						1		1						3			3	8
Shelby														6		5	1	12

	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Total
Spencer												1			2			3
Starke																	3	3
Steuben																4		4
St. Joseph														1		1	1	3
Sullivan								3					3	1	5	2	1	15
Switzerland										1						3	4	8
Tippecanoe						1		1						2	3	7	1	15
Tipton																		0
Union															1			1
Vanderburgh					3	1							1	18	4	4	1	32
Vermillion															1	2		3
Vigo				1				1						1			2	5
Wabash													4		3	1	2	10
Warren																	1	1
Warrick															1	1	1	3
Washington														1			2	3
Wayne																3	3	6
Wells														2		2		4
White															1			1
Whitley																	3	3
TOTAL	0	0	0	3	8	13	16	18	1	4	2	13	33	134	78	117	88	528

from Canada, Mexico, Russia, Norway, Sweden, Japan, and forty-eight of the states[11] of the United States. The incidence has been very low in New England and in the state of Washington.[10]

Season,[10, 12] race, age and sex have epidemiological meaning in-so-far as they influence significant exposures. In Indiana the trend by years by counties is indicated in Table I, by months in Table II. The average yearly incidence in counties and the rate of each per 100,000 population are listed in Table III.

PATHOLOGY

Francis says the surface of the liver, spleen, bone marrow and lungs of infected rabbits are studded with small, round, gray spots, first visible on the third or fourth day of illness.[3] Actually, the germs grow in every part of the rabbit's body.[10]

According to Simpson, the most common abnormal anatomical finding is enlargement of the lymph glands. The spleen is also always enlarged. In man there may be a primary, granulomatous lesion at the point of entry of the organism. The base is infiltrated with lymphocytes, endothelial cells and plasma cells. The capillaries show endothelial hyperplasia. At first local the disease soon becomes a general septicemia. The primary ulcer, the lymph nodes, the spleen, the liver and the lungs[13] show focal necroses.[8]

SYMPTOMS

The incubation period is usually less than five days, averaging about three days.[6] The symptoms appear suddenly with headache, vomiting, chills, general aching, fever, loss of weight, sweats, weakness, and occasionally an eruption of the skin.[10] Cecil[8] lists seven types. The *ulcero-glandular* starts with a papule that becomes an ulcer. Regional lymph glands are enlarged. The *oculo-glandular* is characterized by conjunctivitis and enlargement of

[11] Top, Franklin H.: *Handbook of Communicable Diseases*, St. Louis, The C. V. Mosby Co., pp. 538-572, 1941.

[12] Morgan, Banner Bill: The Seasonal Occurrence of Tularemia in the North Central States *Human Biology*, **13**:334-349 (December) 1941.

[13] Kennedy, Allen J.: Pulmonary Tularemia, *Journal of the American Medical Association*, **118**:781-787 (March 7) 1942.

TABLE II

TULAREMIA IN INDIANA—REPORTED CASES BY MONTHS 1925-1941, INCLUSIVE BY COUNTIES

	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Total
January						2	3	9	1					6	14	30	9	74
February														2	7	3	3	15
March				1						1						4		6
April								1						2	1			4
May														2	2			4
June														2		2		4
July														1		1		2
August				1												1	1	3
September										2					2	2	2	8
October							1						1		6			8
November					1	6	1	1					4	8	6	30	6	63
December				1	7	5	11	7		1	2	13	28	111	40	44	67	337
Total	0	0	0	3	8	13	16	18	1	4	2	13	33	134	78	117	88	528

TABLE III

COUNTY	Cases	Average Cases	Approximate Number	Population	Rate per 100,000
Adams	3	0.214	0.2	20,605	0.97
Allen	29	2.07	2.0	150,914	1.32
Bartholomew	6	0.428	0.4	26,570	1.51
Benton	1	0.071	0.1	11,502	0.87
Blackford	0	.....	....	13,700	.....
Boone	5	0.357	0.4	22,186	1.80
Brown	....	.....	....	5,179	.....
Carroll	7	0.50	0.5	15,229	3.28
Cass	15	1.07	1.0	35,713	2.80
Clark	....	.....	....	30,894	.....
Clay	5	0.357	0.4	25,922	1.54
Clinton	....	.....	....	27,870	.....
Crawford	....	.....	....	10,166	.....
Daviess	6	0.428	0.4	25,998	1.54
Dearborn	13	0.928	0.9	22,055	4.08
Decatur	7	0.50	0.5	17,515	2.86
Dekalb	10	0.714	0.7	24,834	2.81
Delaware	....	.....	....	71,117	.....
Dubois	5	0.357	0.4	21,566	1.86
Elkhart	9	0.64	0.6	70,755	0.85
Fayette	2	0.142	0.1	19,327	0.52
Floyd	1	0.071	0.1	34,858	0.29
Fountain	4	0.285	0.3	18,135	1.66
Franklin	6	0.428	0.4	14,455	2.77
Fulton	8	0.571	0.6	15,308	3.92
Gibson	8	0.571	0.6	29,956	2.00
Grant	4	0.285	0.3	53,440	0.56
Greene	10	0.714	0.7	31,406	2.23
Hamilton	....	.....	....	24,029	.....
Hancock	2	0.142	0.1	16,954	0.59
Harrison	4	0.285	0.3	17,180	1.75
Hendricks	3	0.214	0.2	19,938	1.00
Henry	5	0.357	0.4	37,723	1.06
Howard	8	0.571	0.6	47,224	1.27
Huntington	5	0.357	0.4	29,502	1.36
Jackson	5	0.357	0.4	25,172	1.59
Jasper	6	0.428	0.4	13,893	2.88
Jay	....	.....	....	22,224	.....
Jefferson	2	0.142	0.1	19,547	0.51
Jennings	3	0.214	0.2	12,740	1.57
Johnson	11	0.786	0.8	22,100	3.62
Knox	3	0.214	0.2	43,893	0.46
Kosciusko	11	0.786	0.8	28,525	2.81
Lagrange	1	0.071	0.1	14,066	0.71
Lake	17	1.21	1.0	277,253	0.36
Laporte	5	0.357	0.4	62,075	0.64
Lawrence	11	0.786	0.8	35,314	2.27
Madison	3	0.214	0.2	85,732	0.23
Marion	29	2.07	2.0	441,796	0.45
Marshall	8	0.571	0.6	25,506	2.35
Martin	....	.....	....	10,202	.....
Miami	10	0.714	0.7	28,476	2.46
Monroe	3	0.214	0.2	36,254	0.55
Montgomery	7	0.50	0.5	27,106	1.84
Morgan	1	0.071	0.1	19,613	0.51
Newton	2	0.142	0.1	10,308	.97
Noble	8	0.571	0.6	22,590	2.66
Ohio	2	0.142	0.1	3,765	2.66
Orange	2	0.142	0.1	17,385	0.58
Owen	4	0.285	0.3	11,721	2.56
Parke	3	0.214	0.2	16,960	1.18
Perry	1	0.071	0.1	17,198	0.58
Pike	6	0.428	0.4	16,703	2.40
Porter	3	0.214	0.2	25,329	0.79
Posey	9	0.64	0.6	18,518	3.24
Pulaski	3	0.214	0.2	11,625	1.72
Putnam	3	0.214	0.2	20,644	0.97
Randolph	6	0.428	0.4	25,813	1.55
Ripley	4	0.285	0.3	28,488	1.05
Rush	2	0.142	0.1	19,170	0.52
Scott	8	0.571	0.6	7,821	7.67
Shelby	12	0.857	0.9	26,253	3.43
Spencer	3	0.214	0.2	16,465	1.21

COUNTY	Cases	Average Cases	Approximate Number	Population	Rate per 100,000
Starke	3	0.214	0.2	11,439	1.75
Steuben	4	0.285	0.3	13,563	2.21
St. Joseph	3	0.214	0.2	160,928	0.12
Sullivan	15	1.07	1.0	27,574	3.63
Switzerland	8	0.571	0.6	8,300	7.23
Tippecanoe	15	1.07	1.0	49,278	2.03
Tipton	....	.....	....	15,172	.....
Union	1	0.071	0.1	5,948	1.68
Vanderburgh	32	2.29	2.3	122,052	1.88
Vermillion	3	0.214	0.2	27,513	0.73
Vigo	5	0.357	0.4	99,285	4.03
Wabash	10	0.714	0.7	25,885	2.71
Warren	1	0.071	0.1	9,111	1.10
Warrick	3	0.214	0.2	18,833	1.06
Washington	3	0.214	0.2	16,647	1.21
Wayne	6	0.428	0.4	57,019	0.70
Wells	4	0.285	0.3	18,755	1.60
White	1	0.071	0.1	16,434	0.60
Whitley	3	0.214	0.2	16,461	1.21

Tularemia in Indiana, 1928-1941, inclusive. Rates of incidence per 100,000 population (Population of 1930 plus the population of 1940 divided by 2). The cases per average year are derived by dividing the total cases reported during the observed interval by 14. The population of each county was obtained by dividing the figures of the United States Census Bureau as of 1930 added to those of 1940 and divided by two.

the regional lymph nodes. In the *glandular* type there is no primary lesion but regional lymph nodes enlarge. The *typhoid* type is second in importance. There is no primary lesion and no apparent adenopathy. The germ passes through the skin into the blood and causes a general septicemia. Pneumonia, secondary to the primary lesion, develops in the *pulmonary* type. In the *ingestion* type there is vomiting, intestinal pain, diarrhea, fever, enlarged cervical lymph nodes, convulsions, stupor, and death. This form is usually due to eating the insufficiently cooked meat of an infected animal or to drinking water polluted by the urine of water rats and of beavers that have the disease. The *meningeal* type is exceedingly fatal, but fortunately is rare.

DIAGNOSIS

Although now regarded as a common disease of humans, mistakes in diagnosis are frequent but unavoidable. Tularemia is easily confused with sepsis, typhoid fever, undulant fever, sporotrichosis, tuberculosis or pneumonia. Diagnosis is admittedly difficult, especially in the glandular, the typhoid, the pulmonary, the ingestion, and the meningeal types.[3, 8, 14, 15]

In general, the diagnostician should consider symptoms, signs, history of contact with a susceptible animal or of an experience with a bloodsucking fly or tick that is followed by a primary lesion and later by enlarged, painful regional lymph nodes and usually by constitutional symptoms of a bacteriemia. If the physician's findings indicate the possibility of tularemia, he may seek confirmation by one or more of the available diagnostic aids.

It is generally conceded that the most reliable laboratory aid in the diagnosis of tularemia is the agglutination test. Unfortunately, agglutinins do not usually appear in the blood until the second week of illness; they reach a titer of 1:1280 in the third week and may be demonstrable thirty years after the initial infection. Agglutination in a dilution of 1:100 is considered significant.[16] For the agglutination test collect 4 or 5 cc. of blood as for a Wassermann. If this is to be sent to a distant laboratory add an equal amount of chemically pure glycerin to the clear serum, especially if the weather is warm. Send the specimen to any approved laboratory.

Foshay's intradermal skin test[15, 17] is the earliest diagnostic aid. It is often present as early as the fourth day of illness. Its usefulness usually continues for a year after the initial infection.

Another diagnostic procedure occasionally useful in early cases is direct culture of the pathogen. Material from the primary lesion, suppurating regional lymph nodes, pneumonic sputum, or blood taken during the first week of illness may be inoculated on special media and the resultant growth studied by various methods. For example, guinea pigs inoculated with suspensions containing Bacillus tularensis die in five days. Necropsy reveals typical lesions in the lymph nodes, spleen and liver.

Stained preparations from the primary lesion or from an incised, suppurating, regional lymph node mounted under cover glass are said to have little, if any, value.

[14] Foshay, Lee: Tularemia Treated by a New Scientific Antiserum, *American Journal of Medical Sciences*, **187**: 235-245 (Feb.) 1934.

[15] Foshay, Lee: Tularemia, Summary of Certain Aspects of Disease Including Method for Early Diagnosis and Results of Serum Treatment in 600 Patients, *Medicine*, **19**:1-83, (Feb.) 1940.

[16] Rice, Thurman B.: *Textbook of Bacteriology*, Third Edition, Revised, W. B. Saunders Co., Philadelphia, pp. 312-315 and 454.

[17] Foshay, Lee: Tularemia, Accurate and Easier Diagnosis by Means of the Intradermal Skin Reaction, *Journal of Infectious Diseases*, **51**:286-291 (Sept.-Oct.) 1932.

TREATMENT

Treatment is largely symptomatic and should be adapted to the individual case.[8] Rest in bed is essential. Hot, moist antiseptic dressings should be applied to the local ulcer mainly for the protective value to the attendant. The local ulcer must not be incised, but suppurating regional lymph glands should first be treated with moist heat, then incised and drained. Treatment of the ophthalmic form should be supervised by an oculist. Frequent cleansing of the conjunctiva followed by the application of a suitable ophthalmic ointment is a useful procedure. As yet, neither a reliable preventive vaccine, nor an effective chemotherapeutic agent has been perfected.[18] Foshay[15] reports very encouraging results from the use of his antiserum.[14] He advises that the antiserum be administered early in the disease, but he has used it at intervals varying from the twelfth to the seventy-seventh day of illness. He prefers the intravenous route and seldom administers more than twenty-six cc. Its beneficial effects are believed to be due to its desensitizing action. However, a recent experiment by Francis and Felton reveals no evidence of the development of antibodies in white mice following the administration of antitularemic serum.[7] At the present time most authorities seem to believe its value has not yet been established. In spite of this some clinicians believe serum should be tried in all severe cases.

PROPHYLAXIS

Many forms of wild life, especially rabbits, are very susceptible to infection. Control of the vectors responsible for the spread of the disease among animals is impossible. Furthermore, the most important animal host is hunted for sport, food, and fur. At the same time the destruction of many of its natural enemies is encouraged. Some argue that extermination of wild rabbits by an open, yearlong, hunting season might be desirable. They point out that domesticated, tick-free rabbits could supply our needs in fur and meat and thus eliminate the present danger of the potential infection of humans inherent in the handling of wild rabbits. Opponents of control of tularemia by eradication of the rabbit assert that too many enjoy hunting to make extermination of wild rabbits a desirable or practical preventive measure. However, the following simple precautions, if followed, will help materially in reducing the incidence of this disease.

1. Sportsmen should be careful not to handle hares that are easily caught.
2. Rubber gloves furnish considerable protection to those who handle rabbits.
3. The meat of susceptible animals should be thoroughly cooked before it is eaten. The possibility of effective destruction of the germ by refrigeration is denied by some.[6, 17]
4. Protection against and avoidance of insect vectors of the disease are helpful. These insects should not be handled or crushed between the fingers or on the skin.

Recent studies by Dr. Green[19] indicate that making the hunting season for rabbits coincide with the period of hibernation of the principal insect vectors should materially reduce the incidence of the disease in humans. This period has not been definitely determined for Indiana, but it is probably well advanced by the middle of December.

Community education in essential hygiene is desirable. Market inspection is not considered to be a practical procedure of control. Legislation prohibiting the interstate shipments of wild rabbits and also repeal of the game laws protecting rabbits have been advocated by some. However, these procedures are vigorously opposed by most sportsmen.

Although quarantine is not indicated, all cases should be promptly reported. Theoretically, the nurse should disinfect sputum, conjunctival secretion, urine, feces, and the dressing from abscesses, but no case has been traced to these sources.

The State Department of Conservation, Purdue University, and the Indiana State Board of Health are coöperating in a study of the present status of the cottontail with respect to tularemia. Forms will be sent to physicians who report cases. These should be filled in and promptly returned to the State Board of Health. The information when tabulated and analyzed may be of considerable value in the institution of effective control.

Since American scientists had the honor to be the first to discover this disease, they should also be the first to make it possible for health commissioners to control it.

[18] Editorial, Tularemia, (Rabbit Fever), *Public Health Reports* **55**:667-670, (April 19) 1940.

[19] Green, Robert G.: Tularemia—A Hunter's Problem. *The Ohio Conservation Bulletin*, **6**:12-13 (Sept.) 1942.

Abstract

GENERAL PRACTITIONER'S ROLE IN THE ERADICATION OF TUBERCULOSIS

As reminder of our duty in connection with the Christmas Seal Campaign, we quote a statement made by Dr. Herman E. Hilleboe, P.A., surgeon-in-charge, Tuberculosis Control, States Relations Division, United States Public Health Service, as follows:

"The role of the general practitioner in the eradication of tuberculosis cannot be overemphasized. Mass programs of case finding in high schools, colleges, industry and racial groups are public health functions. But there are other categories that such drag-nets do not reach. One of these is the older third of the population. They constitute no single group to be rounded up for mass examination, yet they contain a higher percentage of infectious cases than any other age. The family doctor alone has direct access to this reservoir of community infection. To drain it effectively and speedily his aid is indispensable."—Editorial, Tuberculosis Abstracts, Nov., 1942.

CHEMOTHERAPY IN OPHTHALMOLOGY*

(A Review of Recent Literature)

C. W. RUTHERFORD, M.D.
INDIANAPOLIS

Sulfanilamide was first made as an azo dye in 1908 and first investigated for possible medical use in 1932. The first reports concerning its use in diseases of the eye were published in 1937. Since then much has been written about this drug and its derivatives in the therapeutics of infections. The subject of chemotherapy in ophthalmology[1] was first reviewed in Indiana in 1939.

DRUG CHARACTERISTICS

Sulfonamides rarely need be given intravenously because, under common circumstances, they quickly appear in the blood and body tissues after oral administration, and in the aqueous (except sulfathiazole) and the cornea by direct application.[2] Concentration of free drug is greater in the blood than in tissue fluids, but may be only equal to or even less than that found in fluids in the area of wounds. Maintenance of effective concentration is essential to success with chemotherapy. Further studies of these agents will be necessary for a proper appreciation of what can or cannot be expected of them, and where and how they are to be applied in practice with reasonable certainty of results.

Commendable efforts have been expended in the study of the results of sulfonamides in animals' eyes. These can only be summarized without discussion here. After oral administration to rabbits the milligram per cent in the aqueous was found to be two-thirds that of the blood level for sulfanilamide and sulfapyridine, one-half for sulfadiazine and only one-fifth for sulfathiazole; paracentesis of the anterior chamber materially increased the level for all four. In dogs' eyes the penetration[3] of sulfanilamide was satisfactory, whereas that of sulfapyridine, sulfathiazole and sulfadiazine was limited.

In cats' eyes the penetration of sulfanilamide, sulfapyridine and sulfadiazine was adequate, but for sulfathiazole it was not.

Concentrations of free sulfanilamide in the aqueous of human eyes were determined after oral administration, instillations of 1.0 per cent solutions and applications of a thick, even layer of finely sifted (200 mesh) powder. The milligram per cent was much the highest, 44.4 after using powder; the cornea is anesthetized, the powder applied and the eyelids kept closed for one hour. In another report the milligram per cent was 2.6 after instillations of 1.0 per cent solutions of sulfanilamide, and 22.3 after applying powder.

Sulfathiazole is a comparatively new derivative which is characterized by rapid absorption into body fluids, except cerebrospinal. It enters into the aqueous only in small quantities, but the amount is substantially increased in the presence of orbital and ocular inflammations, with the coincident use of vasodilators, and following paracentesis, or tapping, of the anterior chamber. Absorption is better when the body temperature is above normal. In one series of investigations the diffusion of sulfathiazole into the aqueous was 18 per cent of that into the blood, whereas that of sulfapyridine was 81 per cent; the concentrations in the cornea and aqueous for sulfathiazole was one-fifth that in the blood, against two-thirds to three-fourths for sulfapyridine.

Sulfanilamide absorbs into tissues more regularly and uniformly than does sulfapyridine, but concentration is better maintained by the latter. Sulfapyridine sodium is more effective than sulfapyridine, but is much more toxic.

The choice of the agent to be employed in a given case is influenced by what is to be accomplished and by the physical and physiologic peculiarities of the patient which may lead to complications.

COMPLICATIONS[4,5]

Nausea, with or without vomiting, usually subsides without withdrawing the drug or reducing its dosage. Inhalations of pure oxygen relieve these symptoms, or they may be prevented by using enteric tablets, administering the drug in milk, or by giving luminal an hour before the sulfonamide. Sulfathiazole is said to be better tolerated when there is food in the stomach or when given with dilute hydrochloric acid.

Drug rashes, fever and cyanosis, require interruption of chemotherapy only when severe, with resumption when the symptoms subside.

Acute and chronic hepatitis are infrequent complications; the earliest sign is a yellowish tinge of the previously blue-white sclera. Sulfa drugs should be discontinued.

Blood disturbances, such as acute and chronic

* Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at French Lick, September 30, 1942.

[1] Rutherford, C. W.: Sulfanilamide and Neo-prontosil. *Trans. Ind. Acad. Ophth. and Otolaryng.* 1939, p. 13, and *Jour. Ind. St. Med. Assoc.* **33**:241 (May) 1940.

[2] Connell, E. S., and Trowbridge, B. C.: Local Use of Sulfanilamide and Derivatives in the Practice of Ophthalmology, *Arch. Ophth.* **27**:705 (Apr.) 1942.

[3] Chinn, H., and Bellows, J. G.: Corneal Penetration of Sulfanilamide and Some of Its Derivatives, *Arch. Ophth.* **27**:34 (Jan.) 1942.

[4] Wong, R. T.: Chemotherapy in the Treatment of Gonorrheal Ophthalmia, *Arch. Ophth.* **27**:670 (Apr.) 1942.

[5] Mullen, C. R.: Sulfathiazole in the Treatment of Gonorrheal Eye Disease, *Amer. Jour. Ophth.* **25**:59 (Jan.) 1942.

hemolytic anemia, acute agranulocytosis, neutropenia, and acute leukopenia with granulocytopenia, prohibit continuance of sulfonamides.

Paresthesias, lowered muscular contractions, neuritic pains, hematuria and anuria with azotemia constitute contraindications to further use of chemotherapy. A red color in urine or feces does not necessarily mean the presence of blood; the drug is a dye.

Retinal hemorrhages, noted in a few cases, are interpreted as petechial in nature, similar to those found in the skin and the urinary and gastrointestinal tracts when using sulfa drugs.

Transient myopia has been found a number of times. Optic neuritis with central scotoma is occasionally reported.

While complications are infrequent and seldom serious in ophthalmic practice, there are some precautionary measures which are important, especially since untoward effects from sulfanilamide are sometimes delayed in appearing and are severe. Sulfapyridine rarely produces symptoms that require its omission, sulfathiazole still less, and sulfadiazine is least inclined to do so.

Patients should be watched for evidences of personal sensitivity to sulfonamides. Frequent examinations of the blood, with the intent of holding the milligram per cent to not above six or seven, is advisable; in diseases of the eye it is seldom necessary to maintain a concentration of more than three or four milligrams per cent. There are arguments for and against combining sodium bicarbonate or citrate with sulfonamides; the urine should be pH 7.4 or above, and alkalies may be needed. An adequate fluid balance must be insured. Patients who do not recover promptly from complications improve on nicotinic acid in doses of 50 mg. three times a day. No ambulant patient should be permitted to drive a car or pilot a plane while taking sulfa drugs, for they slow reaction time and dull alertness; mental confusion is often marked.

OINTMENTS[6]

The use of ointments for local treatment is attracting increasing attention and gaining in popularity. Some of the commonly used ointment bases are incompatible with sulfonamides, or at least have proved irritating. The following formulas for bases have been recommended as overcoming objections to use of ointments: (1) To four parts of sodium alginate add seventy-five parts of boiling water, emulsify and strain, and then stir until cool. Add sixteen parts of anhydrous wool fat, seventy-eight parts of white petrolatum, and one part of sodium chloride dissolved in four parts of water. Sift sulfonamide powder (200 mesh) and make a paste with an equal amount of boiling water before adding it to the base. (2) Incorporate 5 cc. of 5 per cent solution of sulfapyridine in 30 cc. of petrolatum. (3) Incorporate 25 per cent of sulfathiazole in an ozycholesterol-petrolatum base. (4) See blepharitis.

CLINICAL APPLICATION

Persistent staphylococcus blepharitis[7] was improved by an ointment of finely powdered sulfathiazole, 1 to 5 per cent in a base of three parts petrolatum and one part hydrous wool fat, massaged into the lid margins and conjunctiva four to six times a day for weeks and then continued at night for months. Patients received staphylococcus toxoid concurrently. The same or comparable ointment is useful in all types of blepharitis and perifolliculitis.[2] Sulfathiazole is used only locally for hordeoli.

TRACHOMA

It is doubtful that uncomplicated trachoma ever results in severe degrees of blindness, but the nature of the disease lowers the resistance of afflicted individuals to organisms that invade the eye and cause complications. Blindness is actually produced by a persistently progressive fibrosis that affects the cornea, conjunctiva and subconjunctival tissues, conditions that are most difficult or impossible to remove. Any and all efforts to combat blinding complications are justifiable; chemotherapy is the newest weapon in the hands of the profession for this purpose.

Reports from the Missouri Trachoma Hospital[8] and the Irvine-McDowell Memorial Hospital for the Treatment of Trachoma[9] have been published. These reports cover three years of observation and study of hospitalized patients of all ages, presenting all stages of the disease. Oral treatment consisted of one-third grain of sulfanilamide per pound of body weight with an equal amount of sodium bicarbonate daily for ten days, and then one-fourth grain per pound for fourteen days. Concentrations of the free drug in the blood in milligram per cents were estimated weekly. Subjective symptoms were relieved conspicuously and promptly. The most pronounced effects occurred in exacerbative flare-up cases and in corneal lesions, and least in follicular and papillary changes in tissues.

Sulfanilamide alone had questionable value in uncomplicated cases but appeared efficient in clearing up complications, especially those associated with Trachoma III. Large doses over a short period of time were advised, in general, as preferable to small doses for prolonged treatment. The theory is based on obtaining a quick full effect when there is "less likelihood of infectious agents becoming adapted or 'fast' to a particular drug." It is known that in some patients an infecting organism can 'conjugate' the molecule of a sulfonamide and

[6] Elvin, N. C.: Preparation of Sulfathiazole or Sulfanilamide Ointment, *Arch. Ophth.* **27**:373 (Feb.) 1942.

[7] Thygeson, P.: Treatment of Staphylococcus Blepharitis, *Arch. Ophth.* **28**:167 (July) 1942. Discussion.

[8] Smith, J. E.: Julianelle, L. A., and Gamet, J. H.: Sulfonamide Therapy in Trachoma, *Amer. Jour. Ophth.* **24**:174 (Feb.) 1941.

[9] Sory, R.: Sulfanilamide in the Treatment of Trachoma, *Amer. Jour. Ophth.* **25**:713 (June) 1942.

thus render it inactive. This process is the antithesis of the bacteriostatic effects of the drug, and it helps to explain why chemotherapy sometimes becomes inert after early encouraging activity. Sulfapyridine is reported to be especially subject to rapid conjugation.

The Kentucky hospital, in addition to oral administration of sulfanilamide, in some cases instilled 0.8 per cent solutions six times a day. Routinely they used irrigations of tepid boric-acid-saline solutions several times daily.

Missouri also reported on twelve dispensary patients who received instillations of neo-prontosil in 2.5 per cent solutions four times a day. All improved subjectively for one week but made no further progress.

Reports from all sources range from dogged disbelief to fanatical faith in sulfonamides for the cure of trachoma. Sectional differences in patient material and many other and variable factors naturally influence results and interpretations. Best effects have been noted in early or recent cases, in pannus and in trachomatous corneal ulcers and keratitis where sulfonamides aid in the involution of corneal phenomena. Sulfanilamide relieves subjective irritations by controlling secondary infections; it is to be used in surgical corrections of eyelid deformities, for it hastens recovery and protects against secondary infections incident to surgery.

Chemotherapy is valuable when it supplements other treatment, such as grattage and metallic salts applied locally; the combination shortens the duration of treatment, saves tissue and lessens scarring.

GONOCOCCAL INFECTIONS[4,5]

Gonorrheal eye disease is a local one unless there has been a perforation with bacterial invasion of the anterior chamber or a metastasis to the eye. Sulfonamides appear in the cornea and tears in thirty minutes after administration. Sulfathiazole is reported to be superior in effect and better tolerated than sulfanilamide, but slower in action than sulfapyridine. Sulfathiazole is indicated in both internal and external eye infections. It diffuses into the cornea when applied locally, but does not enter into the aqueous in adequate amounts until after tapping of the anterior chamber and the replacement aqueous becomes plasmoid in character. It is advisable to employ sulfathiazole locally in all cases whether or not it is used orally. It is especially useful in reinfections.

Mullen, from the Philadelphia General Hospital, reported on gonorrheal conjunctivitis. It was found that sulfathiazole possesses uniform absorption power, has only minor complications and yields favorable results. No corneal damage was noted. The dosage formula was one grain per pound of body weight, up to 100 grains, with an equal amount of sodium bicarbonate or citrate for the first day, and gradually less afterwards; at the same time cold irrigations were made and followed by instillations of 0.2 per cent solutions of the drug every ten minutes day and night for twenty-four hours. Atropine and ice were used as indicated. Nurses working in pairs in eight-hour shifts on each patient was an essential feature of the program. Smears became negative in twenty-four to forty hours. When clinical signs of the disease no longer existed and smears were negative for three successive days, treatment was relaxed. Results were comparable to those obtained from sulfanilamide in an earlier series.

Reports from England[10,11] on the use of sulfapyridine and sulfathiazole in the treatment of ophthalmia neonatorum indicate satisfactory results with oral administration alone, except in severer cases. Two grains are given in sweetened water or milk, day and night, every three hours the first day, every four hours the second day, and every six hours thereafter. The maximum duration of hospitalization was seven days.

Sulfapyridine was given successfully in a case of acute metastatic gonorrheal dacryadenitis, and sulfanilamide in one of acute metastatic endophthalmitis.

In severe or obstinate cases of gonorrheal infection of the eyes, gonococcus vaccine can be used in doses of two hundred million.

CORNEA

After the removal of foreign bodies from the cornea the B. pyocyaneus is "The most virulent organism that attacks the cornea" and infection therefrom almost invariably led to loss of the globe until sulfonamides were applied in treatment. In a suspected case a smear should be made and cultures started; the latter require forty-eight precious hours, during which irreparable damage is almost certain to occur if culture proof is demanded before resorting to chemotherapy. One must rely on the smear if gram-negative rods are shown, and immediately hospitalize the patient. If a smear is not readily available the patient should be hospitalized on clinical evidence alone, and active treatment begun at once.

One author[12] reported recovery in three cases, with vision of 20/20 in two of them, by the following procedure: An initial dose of two grams (31 grains) of sulfapyridine was followed by one gram every four hours day and night, or to maintain a concentration of 4.6 milligram per cent in the blood. Improvement became evident in twenty-four hours. Supplemental treatment consisted of boric acid irrigations, instillations of 2 per cent mercurochrome solution every two hours, and atropine. Another report showed favorable results in three cases by giving 22½ gains of sulfanilamide every

[10] Clancy, W. J.: Sulphonamides for Ophthalmia Neonatorum. Abst. *Arch. Ophth.* **28**:341 (Aug.) 1942.

[11] Sorsby, A.: Hoffa, E. L., and Smellie, E. W.: Sulfapyridine in Ophthalmia Neonatorum. Abst. *Arch. Ophth.* **28**:342 (Aug.) 1942. Abst. *Amer. Jour. Ophth.* **25**:1017 (Aug.) 1942.

[12] Lepard, C. W.: B. Pyocyaneus Ulcer. *Trans. Amer. Acad. Ophth. and Otolaryng.* (Nov.-Dec.) 1941, p. 55. Discussion. *Arch. Ophth.* **28**:180 (July) 1942. Discussion.

four hours day and night for five days. A third report indicated success with finely powdered sulfathiazole applied directly to the cornea.

L. von Sallmann[13] reported on "Sulfadiazine Iontophoresis in Pyocyaneus Infection in Rabbit Cornea." He found the method definitely superior to simple local use of the agent and observed no damage to corneal epithelium.

Sulfonamides were used in seven patients, aged five to thirteen years, who had syphilitic keratitis;[14] the duration of symptoms had ranged from one to five months. Five patients were treated with sulfanilamide, and one each with sulfapyridine and sulfathiazole; the dosage was five grains three times a day for from one to three weeks. Photophobia was relieved in from four to fourteen days and corneal clouding, not scarring, was cleared in from two to four weeks. Syphilis was not benefited.

Reports from India[15] show that a 5 per cent ointment of sulfanilamide was successfully employed in cases of keratoconjunctivitis with adenitis, acute keratitis, marginal keratitis, pannus, vascular and avascular interstitial keratitis, xerosis and leukoma.

Sulfadiazine was used to cure a case of lymphogranuloma venereum complicated with severe conjunctivitis, ulcerative keratitis and iritis.

Corneal ulcers, serpiginous and hypopyon, received sulfapyridine in fine powder, in ointments and in 0.7 per cent strength in isotonic saline solution; there was quicker recovery, less scarring and less loss of transparency than with former methods of management.

SURGERY

Sulfonamides are believed to possess prophylactic qualities against postoperative infections in ophthalmic surgery, and are recommended as a part of the routine preoperative preparation of patients as well as locally in the field of operation at the time of surgery.

In lacerations of the eyelids a powdered sulfonamide is introduced into the wounds before closing them, in the hope of averting infection and hastening healing.

Sulfathiazole, because of its ability to concentrate in a plasmoid aqueous, is indicated in all cases of intra-ocular injury, particularly in those of the anterior segment.

Note: Sulfanilamide has been mentioned favorably in connection with inclusion blennorrhea, sympathetic ophthalmitis, tularemia and lobar pneumonia after cataract extraction.

[13] von Sallmann, L.: Sulfadiazine Iontophoresis in Pyocyaneus Infection in Rabbit Cornea. *Trans. Assoc. for Research in Ophth., Inc.*, 1942. To be published.

[14] Arena, J. M.: The Use of Sulfonamides in the Treatment of Syphilitic Keratitis, *Jour. Pediat.* **20**:421 (Apr.) 1942.

[15] Sanyal, S., and Maitra, M. N.: Ocular Conditions in India and Their Local Treatment with Sulfanilamide, *Arch. Ophth.* **28**:27 (July) 1942.

CONCLUSIONS

The principal recent advances noted for chemotherapy in ophthalmology are: (1) control of B. pyocyaneus ulcer of the cornea; (2) better management of gonorrheal infections; (3) definition of its proper place in trachoma; and (4) its value in lesions of the cornea when applied locally.

DISCUSSION

Discussion on paper of Dr. C. W. Rutherford, entitled "Chemotherapy in Ophthalmology."

DR. HARRY S. GRADLE (Chicago, Illinois): I would like to take the liberty of disagreeing with Dr. Rutherford in several statements he has made.

In the first place, in the matter of sulfonamides in trachoma, Dr. Masters thought you might be interested in a little conversation we had down on the porch just before we came up here. I ran across Colonel Townsend. He was at that time the Medical Director of the Indian Service, with which I served as consultant for a good many years. Along in February or March of 1938, he called me down to Washington one day and said, "I have a most remarkable report here that I don't know what to do with. There may be something enormous to it, and there may not be anything to it, but it is worth looking into."

This was a report from one of the general physicians of the Indian Service by the name of Fred Loe. The report came from the Rosebud Sioux Agency up in the Dakotas, in which Loe said he had tried sulfanilamide in some thirty-odd cases of trachoma and never, in his whole experience of over thirty years of Indian Service, had he seen such results from anything.

Well, I became inflamed right away and said, "Let's try it out." I managed to get a place for Loe on the program of the A.M.A. which was to meet two months later in San Francisco and got him to compile his stuff.

On the way back to Washington, I stopped over in New York and told John Wheeler about it. John Wheeler was rather canny and skeptical. So he said, "Well, it remains to be proved. Theoretically it doesn't sound very good." But he changed his mind.

Now, I disagree on the skepticism that Dr. Rutherford expressed in the use of sulfanilamide in trachoma. I am basing this on four years of pretty active association with a large amount of trachoma. I have very specific reports of over 1600 cases in the Indian Service in which we have used sulfanilamide to the exclusion of other drugs and nearly 1,000 cases of my own from the clinics in southern Illinois. Frankly, I am sold lock, stock and barrel.

I agree with Dr. Jackson that never in the whole history of trachoma, dating back nearly 3,000 years, has there been such an advance made as there has by the use of sulfanilamide. It is not a cure-all, of course, in any sense of the word. But in contradistinction to the reports Dr. Rutherford

has cited, it is of enormous value in trachoma I and trachoma II. The immediate aspects of the activity of the disease are stopped. As Dr. Thygeson has been able to show, the inclusion bodies disappear entirely from the conjunctiva within four days, so that it is no longer possible to transmit the disease from an active case to a normal eye, after the active case has had four days of intensive sulfanilamide treatment. Epidemiologically, of course, that is the greatest thing in the world. That means if we can get hold of the trachoma cases, we can render them incapable of spreading the disease.

So far, down in southern Illinois, we have been successful in limiting the spread of the disease, so that last year we had twelve new cases of trachoma in the whole southernmost nineteen counties of Illinois, where it has been enormously endemic.

In trachoma III and in the secondary infections, it has proved to be of great value in relieving the patient subjectively and bringing the disease to a stage where it can be treated locally.

In trachoma IV, of course, it is of no value. Sulfanilamide is of no value whatsoever in the relief of scar or fibrotic conditions of the conjunctiva or cornea. You cannot expect it. All sulfanilamide will do is to kill the virus in situ and prevent further damage from the ravages of that selfsame virus.

It is absolutely certain that the scourge of trachoma will be stopped within the next one to two generations, as the medical facilities expand, so that the patients can be reached.

Fifty per cent of the entire population of the world is infected with trachoma. We don't realize that in this country. We haven't very much. We have about 35,000 cases among the Indians and about 25,000 cases among the Caucasians in the United States—a mere 60,000 cases. That is nothing.

In India the infectivity runs around 90 per cent of the total population. In China, the infectivity, as far as it can be estimated, is around 75 per cent. Down through the Malayan Peninsula and the Malayan Islands it is 100 per cent infectivity.

Throughout the northern coast of Africa, along the Mediterranean, 100 per cent of the natives are infected with trachoma. In Poland the trachoma clinics ran at the rate of about 225,000 cases a year. In Russia it is estimated that somewhere between 40 and 50 per cent of the population is infected. So, the figure that was compiled by Wibaut of Amsterdam, stating approximately 50 per cent of the entire population of the world is infected with trachoma, is not far from right.

I do agree completely with Dr. Rutherford that the local use of any of the sulfonamides in trachoma produces practically no effect. It must be the systemic use.

Sulfathiazole has proved of enormous value in gonorrheal ophthalmia. In all probability we will be able to write gonorrheal ophthalmia off the books as a cause of blindness. In Illinois we now have standing rules from the Board of Health as to the use of sulfathiazole in gonorrheal ophthalmia, and the results are brilliant, as are those published from Philadelphia.

I want to corroborate what Dr. Rutherford said about the beneficial results of 5 per cent sulfathiazole ointment used in various forms of blepharitis. I have not found that it is of great value in the ulcerative blepharitis. The nonulcerative, wet blepharitis is apt to respond very well to the local use of 5 per cent sulfathiazole.

Practically apart from that, I have not had very much success in ophthalmic conditions from sulfonamides. I have never seen any results in corneal infections, particularly ulcerative cases. I have never seen any results in intraocular infections.

In fact, just two weeks ago I got a steel case within four hours from the time of the perforation, and before I even started to take the steel out of the eye, I put him on large doses of sulfathiazole, but, nevertheless and notwithstanding, he developed ophthalmia.

DR. C. W. RUTHERFORD (Indianapolis): In essence, I agree with what Dr. Gradle said in regard to the use of sulfonamides in trachoma. I am supported on that by the Department of Public Welfare and in my own work, too. So, there really is no difference after all, and no disagreement that I would acknowledge.

I made the statement that some had a dogged disbelief in these drugs in trachoma, while others had a fanatical faith in them. While I wouldn't apply "dogged" or "fanatical" to either one of the men I am going to mention, as I read their reports I do find a good deal of difference in their impressions, and that is Thygeson and Julionelle. One says one thing, and the other comes out in the next paper and says the opposite.

One of the principal things that impresses me about trachoma is that in the Department of Public Welfare we will use the sulfonamides internally in a chronic case that has flare-ups, even though there is not the least bit of hope of ever restoring vision, that will disqualify that individual from receiving his monthly check. We do it to keep him from giving somebody else a chance to get another monthly check, and it has been working. We are very well satisfied with that effect from it.

We here in Indiana have one problem that I have been trying to get interest in and have, to some extent, got some sympathy for, but we need some push and help when the legislature meets this next time. We cannot touch a man under twenty-one or a woman under eighteen years of age in the Department of Public Welfare program on blind assistance or prevention of blindness or eye treatment.

I don't care who administers the treatment, or

anything of that sort, but we ought to have those younger ages treated. Dr. Gradle mentioned, I think, that the younger people responded. He did, at least, in the meeting this morning, as I understood him. We need the machinery through the legislature. Let the State Board of Public Health take care of it, or anybody, but get it done.

Dr. Gradle said in twenty years we could do away with trachoma. He is more optimistic than I am, because I think those who are under twenty-one and eighteen years of age will be with us more than twenty years, and they will be potent for spreading the disease sporadically. I base my figures on fifty years.

ADEQUATE INTERNAL FIXATION OF FRACTURES*

E. T. STAHL, M.D.

LAFAYETTE

To begin with let me state that this is *not* a plea for open fixation of all fractures. Operative treatment of traumatic lesions of the skeleton has gone through alternate periods of popularity and disfavor. This would indicate that either methods of fixation were faulty or prematurely accepted, or that the methods in use were abused or not properly carried out.

Certain principles must be set up to govern this procedure, if best results are to be obtained.

(1) Proper selection of cases: The patient must be a reasonably good operative risk. This does not mean a robust, young person, necessarily. Sometimes open treatment is accompanied by less shock and less risk of disagreeable postoperative complications than an alternative so-called "conservative method." Closed reduction and external immobilization are not without their dangers and pitfalls. Modern methods of anesthesia, such as spinal, or intravenous, or gas, will decrease the likelihood of complications and, hence, increase the percentage of fair operative risks. Sulfonamide drugs also tend to lessen or combat infectious complications, both local and systemic.

(2) Type of lesion will decide the choice between closed and open reduction of fractures in most cases. Some fractures, such as those of the olecranon or patella with separation of fragments, speak for themselves in demanding operative treatment. The neck of the femur may, I think, also now be added to this class because of the greater comfort of the patient, higher percentage of good results, and lessened time of bed rest and hospitalization.

(3) If a better result can be obtained by open than by closed methods, then there should be no hesitancy in proposing internal fixation. Along with this, of course, comes the question of time required for recovery. If return of function can be greatly hastened by operative measures, the choice should be obvious.

(4) Equipment and personnel available should be a large factor in determining the choice of method. It is only inviting disaster to assume that anyone can successfully operate upon fractures just because he has done *some* surgery. A definite understanding of the pathology at hand is necessary as well as experience or training in dealing with these problems. Of equipment, I shall speak later.

(5) Open fixation should *not* be regarded as a last resort to be used only after other methods have failed. If this rule is followed, much valuable time is lost and possibly the best chance for satisfactory recovery jeopardized.

Poor results in operative fracture cases can generally be traced to one of three causes:

(1) Poor reduction: I do not mean that this has to be perfect, but good alignment, with apposition of fracture surfaces, is necessary, without soft tissue impingement if bone union is to be expected.

(2) Poor or inadequate fixation: If a fracture is to be operated, I feel that some "internal splint" should be used that really will hold the fragments firmly until union can be expected to occur. If this is done, seldom does the material used for fixation need to be removed. Postoperatively, external splintage should be adequate, if it is needed.

(3) Infection—perhaps the worst complication to be feared: It is true that fractures can be infected at open operation. Skin and soft tissues must be in fair condition before open treatment is attempted. Technique must not be careless although I do not believe that the Lane technique is essential. Time consumed in performing open reduction and fixation must be as short as possible. Long exposures of injured soft tissues, or bones, or joints, are very apt to lead to infection or delayed wound healing. If the Lane technique would require fifty to one hundred per cent longer time to perform a given procedure, I feel that its benefit would be lost. Perhaps average aseptic technique of general surgery, and less operative time, is far safer. As for the use of sulfonamide drugs in operative incisions, there is some controversy. For my part, if the procedure is not long, skin

* Presented before the Section on Surgery of the Indiana State Medical Association at French Lick Springs on September 30, 1942.

condition is good, and there has been no previous open wound, I leave them out. If in doubt as to sterility, I put them in. I have not had reason to feel that they interfere with healing. When a simple fracture is opened and devitalized muscle, or fascia, or thrombosed vessels and large clots are encountered, it seems to be good surgery to do a debridement of these tissues, just as one would certainly do with a primary compound fracture. Removal of this debris certainly should decrease culture media for possible contaminating bacteria, as well as promote early healing of the soft tissues. In closing the incision, approximation should be accurate, but tight suture lines should be avoided. It is much better for serum and blood to drain out of the incision onto the dressing than to be dammed up in the wound to serve as culture media for bacteria, and to impede circulation by increasing swelling of the part.

The problem of operative time can be solved, or at least partially so, by several factors. A definite plan of attack is a great help. This is possible only if the operator has reasonable training or experience. Adequate exposure is essential. Small incisions only hamper one and add to the difficulty of performance, as well as impair efficient reduction and fixation. Equipment to perform the operation also influences the time required. The set-up of bone instruments required for open reduction of any fracture should be chosen by one who knows what the operator may use or, better, by the surgeon himself. Adequate general instruments, including retractors, must be available for exposure. Bone fragments must be freed of soft tissues sufficiently to be manageable. A traction table is essential for femurs to overcome shortening. Once the fragments are reduced, they should be held there by a bone clamp until fixed by internal splint. A motor drill greatly facilitates performance of the operation, making it much easier; but even more important is the fact that it greatly reduces the time required for drilling. However, in motor drilling of large bones, water or saline must be supplied to prevent devitalization of bone by generation of excess heat. The motor drill requires only one hand of the surgeon to operate it, thus freeing the other for retraction or other maneuvers. Proper size drills must be available. Holes that are too small will lead to screws jamming and being twisted off, with unnecessary loss of time. Holes that are too large will not allow screws to cut a proper thread, and they will not be secure. Locking screwdrivers likewise save time, keep hands out of wounds, and prevent accidental laceration of important structures, as may occur from a simple screwdriver slipping off when pressure is applied. This likewise tends to displace fragments.

Now, for the choice of internal splints. Much has been written and said about types of metal from which screws or plates are made. Vitallium is supposed to have an advantage over previously used metals in that there is no physiochemical reaction about it as a result of electrolysis. I have never tried to use a galvanometer to determine whether or not this is true. I will say that when I started using vitallium I had much better results than previously. Plates and screws did not loosen up as before and, in the few cases from which I have removed it, it is as bright and shining as when applied. There is little, if any, scar tissue reaction about it and callus grows up around the plates very nicely. S.M.O. metal seems to have all the advantages of vitallium plus the lesser cost; and, being less brittle than cast vitallium, it is thus less likely to snap off when being applied or after closure of the wound. An adequate supply of screws and plates must be available if they are to be used, that is, an assortment of various size plates and various length screws. Screws should transfix not only the proximal cortex of bone but the opposite one as well, as this adds materially to the strength of the fixation. If screw ends project beyond the opposite cortex, they do not cause trouble unless it be where they are not covered by much soft tissue beneath the skin. In the shaft of the femur, particularly, it may be well to apply two plates instead of one, as it adds much strength if they are placed on different sides, perhaps one laterally and one in front. "Hardware" of the proper sort, if firmly fixed to the bone, does not loosen up and does not hinder union, at least in my experience. In long oblique or spiral fractures, screws alone often suffice to give stability to the fixation of the fracture.

I do not mean to imply that plates and screws are the only satisfactory internal splints or sutures for bones. Wire is very useful at times; certain nails are likewise useful and convenient although I feel that in the majority of long bone fractures, screws, or plates and screws, are the easiest to apply and the strongest and best in the long run. The Kirschner wire, aside from its use for skeletal traction, is useful to transfix fragments of clavicle, forearm, et cetera.

If adequate internal fixation is applied to many fractures, including forearm, humerus and femur, no splint or cast may be necessary. This allows early mobilization of the part, prevents stiffening of joints and loss of muscle power and mobility. This is the chief factor in promoting early regaining of function, which is, after all, the important item. The fracture patient is not well when the bone is healed, but only when function returns.

In many cases internal fixation requires less of the surgeon's time in the long run than closed methods. Likewise, it often reduces hospitalization. These two factors are particularly important at the present time. Most of the pain in an injured part is stopped when the fracture is firmly immobilized. These factors, in my opinion, justify frequent use of open operative procedures.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1942, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis

Editorial Board: Term Expires
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943
James O. Ritchey, M.D., Indianapolis....Dec. 31, 1944
Robert V. Hoffman, M.D., South Bend....Dec. 31, 1944

DECEMBER, 1942

Editorials

Christmas, 1942

Notwithstanding the fact that the world is at war, that many of us have members of our immediate families engaged in the prosecution of that war both at home and in foreign lands, yet we feel impelled to offer that old, yet ever new, Holiday message, "A Merry Christmas!" To all of us it will not be the usual season for the various festivities to which we have so long been accustomed; we will not have the "family" at home with us for the occasion.

But we believe that this is a time when we should remember the reason for this world-wide observance—the birth of the Christ Child—and in that remembrance offer our prayers that, in the final end, the Prince of Peace shall again reign over the world, just now so filled with turmoil and strife.

We firmly believe that day will come, and soon, and that the God of us all will again bring to the nations of the earth a peace that will enable us to participate in the greatest of Natal Days.

OLD SYMPTOMS NEWLY INTERPRETED

Sister Elizabeth Kenny, of Australia, has been a true crusader. When confronted with the responsibilities of nursing patients with infantile paralysis in remote regions of Australia, she was without the aid of medical advice. Sister Kenny is a nurse of great powers of observation. She examined the patients and interpreted the symptoms as she saw them. The stiff neck and back she thought were due to muscle spasm. These signs had been previously interpreted as being caused by meningismus. She believes that there is a "muscle condition" which exists in acute anterior poliomyelitis as well as nerve pathology. This "muscle condition" she called "spasm." The spasm occurs in the primarily affected muscle. "Mental alienation" is the term used to describe the flaccidity of the opposing muscle. There are, therefore, two factors at work in producing functional loss in the muscles, namely, the muscle condition called "spasm," caused by the disease, and a secondary involvement of the flaccid muscles by the "mental alienation." "Incoördination" is the third symptom which Sister Kenny stresses. This term describes the use of accessory muscles to produce a movement, the prime-mover being affected by the "spasm" or "mental alienation." Thus, we see a nurse of keen perceptive sense place a new interpretation on the symptoms of infantile paralysis. Her concept has been resisted by the profession, even in her native Australia. Now scientific evidence is accumulating to support her observations. The solution of acute anterior poliomyelitis will be its prevention, but it certainly appears that Sister Kenny has given us a real contribution which has resulted in a better understanding of the symptoms of this dreaded disease.

SECRETARIES-EDITORS' CONFERENCE

The annual meeting of the editors of state medical associations and the editors of the various state medical journals met in annual conference at the headquarters of the American Medical Association, Chicago, on November 21-22, with an attendance of approximately two hundred, this including many state organization officials, together with a score or more officers of the United States armed forces.

These meetings have been held over a period of many years, the current meeting generally having been conceded the most important ever held. The "theme" of the meeting, as was to have been expected, was the wartime policies of American Medicine.

From the time the meeting was called to order by Roger I. Lee, chairman of the Board of Trustees of the American Medical Association, to the conclusion of the program the following day there was a rapid procession of speakers and discussants, all of whom discussed the many war problems confronting us today.

Colonel Fred Rankin, president of the American Medical Association, welcomed the guests of the meeting and made a brief report of the work that has been done and is now going on.

Harrison H. Shoulders, of Tennessee, speaker of

the House of Delegates of the American Medical Association, presided over all the sessions and expedited the program as only one long accustomed to such duties can do.

Ross McIntyre, surgeon general of the United States Navy, was the first speaker on the program and he gave a vivid picture of what the medical department of that most vital part of our armed forces is accomplishing. We may rest assured that the Navy is well cared for medically and that a comparison of similar operations during World War I indicates that medical progress in Navy affairs is the counterpart of what is taking place in Medicine generally.

Frank H. Lahey, head of the Procurement and Assignment Service, spoke on present-day conceptions of what is ahead of his very important committee, giving assurance that the Procurement Service is carrying on, looking forward meanwhile as to what may be expected of it in the months to come.

General Hillman represented the Surgeon General of the United States Army, General Magee, who was unable to be present and assured the Conference that, like all other departments of War, the Surgeon General is fully minded of what American Medicine is doing to further the war program.

President-elect of the American Medical Association, James E. Paullin, was next introduced and spoke of some of the matters he has had under his direction during the past several months.

Thomas Parran, Surgeon General of the United States Public Health Service, spoke on "The Health of our Nation in Wartime," offering numerous suggestions regarding civilian and industrial medical care.

Colonel Rowntree, representing General Lewis B. Hershey of the Selective Service System, discussed the medical needs of the war, from the Selective Service viewpoint.

Creighton Barker, secretary of the Connecticut State Medical Society, discussed "Physicians for Civilians," and Walter F. Donaldson, of Pittsburgh, spoke of the work of his committee on War Participation.

The annual editors' dinner was held on the evening of the first day of the meeting and was largely attended, most of the participants in the program of the day being present. Stanley B. Weld, editor of the *Connecticut State Medical Journal*, presided and talked briefly on some editorial problems. He later introduced Julian B. Price, editor of the *Journal of the South Carolina Medical Association*, who proved to be an entertaining speaker and set forth some rules for the guidance of the many medical editors present.

For an hour or more there was a general discussion of medical magazine problems, several of the editors present giving of their experiences.

The second day of the meeting was devoted to economic problems, the speakers being James C. McCann, of Massachusetts; A. M. Simons and Carl M. Peterson, both of the American Medical Association family.

The majority of the papers and discussions of the meeting will appear in future numbers of *The Journal of the American Medical Association*, and their careful reading is recommended to all our members.

MEDICAL ENLISTMENTS

A Lake County physician, under forty years of age, recently presented himself at one of the Navy stations, in Chicago, seeking enlistment as a naval medical officer. The preliminary questions having been answered, he was asked, "Where do you live?" He replied, "East Chicago, Indiana." "I am sorry, we are told to accept no more applications from medical men from Indiana," was the statement of the naval official. Further questioning on the part of the applicant disclosed the information that Indiana had far exceeded her present quota of medical enlistments in the armed forces, and that for the time being she would be asked for no more such officers.

About the same time the *New England Journal of Medicine* carried a terse, double-leaded editorial, commenting on the medical enlistment situation in the state of Massachusetts. The statement was made that that state stood *fifth from the bottom* in meeting its quota, notwithstanding that Massachusetts long has been known as "The Cradle of Liberty." Editor Robert Nye minced no words in his comment on the situation and declared that other states, ranking right along with Massachusetts, were, notably, New York and Illinois. Indiana, of course, was "over the top." (However, in the Spring of 1918 Indiana stood *forty-second* in a similar list of states.)

During the past few weeks a campaign for medical enlistments, quite similar to that held in Indiana not so long ago, has been going on in the states which have been slow to respond to the earlier calls, and it is probable that by the time this is in print these states will have "caught up with the procession."

However, the fact that Indiana is well ahead of her quota does not mean that we have reached the ultimate end of medical enlistments; on the contrary, we will be expected to furnish a rather large number of men during the coming year. Our local county committees know of this, and most of them already have made the proper "clearances."

Current advices are that the long-expected "second front" is being established in foreign shores, which, of course, means that a full complement of medical officers accompanies this army of several hundred thousand men. Thus, there will be need for medical replacements in the camps and hospitals in this country, to care for the greatly increased load brought about by changes in the Selective Service laws and rulings.

So it is that the physically fit medical man

under fifty should have his house in order, that he may be able to accept the call when it comes—and that without undue delay. Let's keep the Indiana record clean!

THE ELECTION IN INDIANA

Ten years ago, when the present set-up in the management of THE JOURNAL was instituted, one of the first editorial policies adopted was to the effect that our magazine should refrain from entering into political controversies of any sort, and that one member of the Editorial Board should be named to discuss such political matters as might seem of more than common interest to our members. Therefore, rarely have our columns had much to say in things political, whatever our personal feelings may have been in the matter.

But the recent election has brought about so many sweeping changes, right here in our own state, that a bit of comment might seem in order. Various communities may have wavered a bit now and then in their allegiance to the party in control in that area; the state as a whole has "gone Democratic" at times, and then again has "gone Republican," and, like many other states, it also has "gone Dry." So, Indiana long has been regarded as a pivotal state, and national political chiefs long since have cast a wistful eye toward Indiana at election time. And, almost without exception, Indiana has continued to reflect the political trends of the nation. November third was no exception, although it may be said that Indiana went a bit farther than most states in its expression of discontent — not so much with political parties, but discontent with many of the phases of wartime legislation and wartime pronouncements from the nation's capitol. No section of the state escaped "the wrath of the voters"; counties that for the past decade had rolled up huge majorities for one party failed to come through, in many instances making a complete reverse from former years.

We were quite amused by a very brief comment made in a country newspaper, 'way down in Indiana, in a county that never before had elected so much as a Republican county officeholder. Without heading of any sort, the simple statement was made that this county, for the first time in her history, had gone Republican. No further comment was found in that edition of the weekly paper — the editor evidently was too perturbed to talk about it! And, generally speaking, so it went all over the country, save in the "Solid South." The voters of America had registered their frank disapproval of something or other — just what remains for official Washington to determine and, perhaps, do something about it!

We of Indiana would seem to have some special problems of our own to think about; we have an oncoming session of the Indiana General Assembly which will be more than top-heavy, politically speaking; the majority in both Houses is so great as to preclude any legislative action on the part of the minority which might savor of pure politics.

Governor Schricker again finds himself confronted with a legislature that *could* make things unpleasant, such as was attempted in the 1941 session. We trust, however, that the 1943 session will go down in history as a "War Session," one in which matters pertaining to our part in the great drama now being enacted on a world-wide stage will receive every consideration. There is much to be done, so many matters of the most vital importance to be considered that it would please Hoosierdom greatly if straight politics were adjourned for the session. Of course, there will be some jockeying for patronage distribution, some few members will again revive pet measures that heretofore they have been unable to have passed, but purely political affairs might well be shelved until another day.

The position of the medical profession at this time seems to be satisfactory; we have met every situation as it has arisen; we have manned the Selective Service examination boards — without pay — and have responded to every call made upon us. We have furnished more than our quota of medical officers, all of whom are now in active service, with more to be called later on during next year.

So it would seem that any attacks on the profession and its legal status within the state should meet with little consideration by the legislators at this time. We are too busy with our added professional duties to be called upon to make a fight to retain the status we now have. We believe that the legislature and the Governor are fully cognizant of what we have done, what we are doing, and what we intend to do during the national emergency. Knowing this, we believe that the spirit of "fair play" will prevail in matters pertaining to the medical profession of Indiana.

DOCTORS AND GAS

There is no little controversy in the matter of the necessity of gas rationing throughout the country. Those living in the central areas maintain that with oil refineries plentifully distributed throughout the region, there is no local oil or gas problem thereabouts. This is, of course, true; here in Indiana, in the Lake County area, we have several of the world's largest oil refineries, together with "bulk plants," supplied by pipelines from plants elsewhere in the country. Locally, there is no shortage of oil products.

But, in the eastern section of the country it is a different matter. There an acute shortage exists, and it is the great Middle West that is looked upon to supply this deficiency. No matter how we of Indiana may view the picture, the fact remains that there does exist a shortage of oil products in many sections of the nation; these

shortages to be cared for as best we may. Thus, it is that all of the country goes on a gas rationing program.

Physicians are especially interested in the matter, since we are to be granted special rationing cards — these in the main to furnish an unlimited amount of fuel supply for our cars. This very fact has brought out numerous discussions in current medical magazines, most of which are devoted to "advice" to physicians about the use of this special privilege. In addition, gas rationing authorities have issued special advices on the subject. It is, of course, agreed that *a physician shall have all the gas necessary to carry on his work, but that the special privilege shall end right there.*

Using the car for making calls, et cetera, is one thing; using the car for social purposes, for trips out to Aunt Mary's or out to one's farm — which may be in a distant state — is another thing. *Your gas rationing card is based on professional use* and for no other purpose. A physician who violates this principle is certain to be criticized — and justly so. The medical profession needs every friend it can muster up these days; we have too many enemies ready to attack us on the slightest provocation, and rest assured that physicians using their cars for *all purposes* sooner or later will be caught up with by some neighbor and a report thereof will probably be made to the rationing board, which means trouble for all of us.

Drive to medical meetings, of course we mean neighborhood meetings, but it would be well to pick up a load rather than have each man drive for himself. Cut out the trips into adjacent cities; omit the customary visits to night clubs, et cetera; and finally, be just another American citizen and regard your "C" card as a special privilege to be used just for what it is intended.

ASK YOUR PEOPLE TO HELP!

In these times of national emergency, as it now has come to be generally called, one of the most important problems confronting the medical profession is that of Civilian Defense, particularly that part of the problem having to do with civilian health.

The people of America had come to regard medical care as a matter of course; it involved little more than stepping to a telephone and placing a call for one's doctor. The time of day — or night — had little to do with the picture; one placed the call and the doctor responded.

Today the entire pattern is changed; we still have medical service, usually in plenty, if properly used. There are, of course, sections of the country in which the supply of physicians is woefully diminished, but in due time the various agencies having such matters in charge will see to it that medical service is available to all, with certain restrictions. With thousands of our doctors in service — and many more thousands to be called — the problem of distribution of medical care is paramount. And it is the local medical societies that will have to solve these problems.

As we have said before, a single pattern for the nation or for a state will not suffice. The problem in a northern Indiana county, for example, in no wise resembles the problem in another section of the state; each county society should adopt its own plan, a plan peculiarly adapted to that county — and no group knows as well as the local medical profession what this pattern should be.

We have noted comment in the Indiana press from various local medical societies, statements given to the local press concerning the matter of local medical care in that community. One of the outstanding articles is a statement of the Washington County Medical Society, as published in the *Salem Democrat.*

Over the signature of the officers of that county medical society appears a succinct statement of fact — that there are left in that county only six active physicians, but that with the proper coöperation on the part of the people these six men will undertake to furnish adequate medical care — and we believe that they will do it!

They do not ask the impossible; they ask only that the people of Washington County "play fair" with this little group of medical men, most of whom have reached that age where a certain amount of rest is a frank necessity. The people are told to place their calls early, when there is sickness in the home to call the doctor right now rather than wait until the dead hours of the night, which means a loss of essential rest for the busy medical man. In concluding their published statement the medical society says: "We believe that, with your hearty coöperation, we may be able to give you the best service of which we are capable. And we believe it to be our, and your, patriotic duty to conserve the health of all."

This is but one of dozens of instances in which local medical groups are endeavoring to educate the American people in matters of health conservation, and as the war goes on these movements will be greatly accelerated until we have accomplished the desired results.

The Lake County Medical Society, through the efforts of Executive Secretary Waterson, has approached the matter under somewhat different angles. They have published, *by means of paid advertisements,* in the daily press of that county, statements covering the subject. THE JOURNAL reproduces herewith one of these advertisements, believing that it merits a special consideration at the hands of Hoosier Medicine.

We believe that publicity of this sort is good, not only because of the current need for such propaganda, but also because the American public has been taught to believe that if one has something good to sell, he will do well to advertise that thing in the local press. However it be accomplished,

we must continue to stress the importance of conservation of medical care — one of the greatest commodities of the American people — and we frankly and firmly believe that if they are properly taught in the matter they will be eminently fair with us.

The American press continues to stress the importance of the "American way of Medicine," taking every opportunity to urge that the greatest of the professions be not "regimented." Our Indiana newspapers join wholeheartedly in this campaign, doing a good job of presenting to their readers cogent reasons why this should be avoided.

The *Seymour Tribune* recently had this to say in connection with an editorial on "American Achievement":

> "Doctors have, and necessarily, opposed radical schemes for socializing medicine — for making doctors governmental employes, dependent on political favoritism for their jobs and their incomes. The records show that, in every nation where socialized medicine exists, the standard of national health is far below ours — and far less progress is made in fighting and controlling disease. In this nation, under our system of private medicine, many of the most revolutionary medical discoveries in history have been made — and progress never ends. At this particular time, the work being done by American doctors in the all-important field of war medicine is particularly outstanding.
>
> "The American medical system has worked. It has produced health, happiness and longer life for millions. It is one of the typically American achievements."

WAR BONDS

There still is need for improvement in the War Bond program of medical men. True it is that most of us are buying bonds more or less regularly, but checks here and there indicate that we can do a better job of it than we are doing. Your beneficent old Uncle Sam continues to find himself "strapped" for ready cash, and it is these War Bond purchases that tend to fill his pockets, temporarily of course, with much needed funds.

With the various rationing programs now in force, plus those that inevitably face us, we will find ourselves possessed of ready cash that we have not had for some time. We are to be taught how to quit spending for a lot of things, and this money might well be invested in War Bonds.

As an investment, they are just about the best bet; stocks and bonds fluctuate in value, occasionally their value disappears; real estate is more or less of a gamble; first mortgages too often bring grief; War Bonds need not worry anybody — they are good, safe investments.

When we read about Nazi Rommel taking the lam in high fashion, 'way off there in Egypt; when we read about what is happening to the Italians — and what is going to happen to them; if we read carefully we will read all about the "General Grants," the "General Shermans," meaning a type of tanks that somehow or other do a better job than similar war machines devised by the Nazis, Indiana folk should take particular pride in the fact that both these "Generals" are Indiana products — Yes, Sir! made right here in the Hoosier state! We of Lake County see carload after carload of 'em being shipped to the various ports, there to be carried to the fields of battle. And it's these "Generals" that your War Bond moneys make possible. More bonds, more tanks; let's give 'em MORE BONDS!

Editorial Notes

Add to wartime medical problems—Evansville has been having quite a time trying to find a full-time health official for that city.

Two Indiana physicians, members of Base Hospital No. 32, while awaiting service call by the hospital unit, volunteered to assist in making physical examination of inductees at Billings Hospital, Fort Harrison. To date these chaps have made something like twelve hundred examinations —quite a boost for Uncle Sam!

New VD clinics have been opened at Franklin and Seymour, in addition to the one recently installed at Columbus. These clinics are a part of the new program of the Indiana State Board of Health in the matter of control of the venereal diseases in areas adjacent to the Army camps, et cetera.

Another swank hotel in a Florida resort city has been taken over by the Army, making the third or fourth such institution to be closed to the public for the duration. What with travel restrictions being what they are and what they are expected to be in the near future, "winter vacations" will be rare events in the months to come.

We are pleased to note that the United States Supreme Court has expressed a willingness to review the decision of a United States Court of Appeals, which had affirmed a decision of a Federal District Court that the American Medical Association was a trust and that medicine was a trade rather than a profession. Be it remembered that the Supreme Court has the power to refuse to make such reconsiderations, and the fact that it will do so in this case is a matter of utmost importance to the medical profession. We welcome a showdown in the matter; we would like to know just what our status is, that our future plans may be made in accordance with the decision of that final legal body.

THE JOURNAL for 1943 probably will have fewer special numbers than heretofore, due to the fact that Hoosier Medicine is going to be too busy for many such numbers. It requires a lot of planning, a lot of writing and a lot of other things to get out a special number. However, we plan to feature some special numbers—in May by the annual Conservation of Vision issue, then still later by another special issue devoted to War and Industrial Medicine.

The "relocation of manpower" seems still to be a burning question in official Washington; press advices state that the President is not at all satisfied with the present situation in this regard and proposes to do something about it. We would again urge our local societies, especially the larger groups, to begin now the consideration of a plan for local civilian and industrial medical care. It stands to reason that the "powers," if they decide to take things into their own hands, will not interfere with an adequate set-up in any given community.

The transportation situation seems a long way from solution, notwithstanding that even now the Army has the preference in railroad and bus travel, this including freight and express service. One should hesitate before planning a train trip of any great distance; we firmly believe that in the very near future such trips will be had only after the proper permit is obtained, and the getting of this permit will be no easy task. Coordinator Eastman has not cracked down to the extent that is to be expected, but already one can "see the handwriting," and it behooves us to expect drastic changes in the near future.

At the recent French Lick session the Indiana State Medical Association passed a resolution to the effect that the coming session of the Indiana legislature be asked to enact a measure providing for the immunization of all school children against smallpox and diphtheria prior to their entering school; immunization against typhoid fever of all school children during the war, and typhoid fever and smallpox immunization of all employees in the primary defense industries. This is more than a health measure, although this phase of the matter should be sufficient for the consideration of members of the legislature. A vitally important phase is the conservation of medical resources. If all the children of Indiana were thus immunized and if all the employees in our defense industries were free from the possibility of these preventable diseases, much time would be saved by the already overworked physicians remaining at home. There is not the slightest excuse for either of these diseases gaining any sort of foothold within our state since immunization affords protection in practically every case.

Our hospitals over the state find themselves put to it to afford accommodations for patients, and as a result several new rules have been promulgated. Some Lake County hospitals have found it necessary for normal obstetrical cases to be discharged from the hospital after six days. So-called "luxury nursing" is also out for the duration. If a patient gets one or more "specials," it is solely because these are vitally necessary. A lot of hospital cases, formerly ensconced in private rooms with attendants galore, now find themselves in wards.

One wonders just what the final decision will be in the matter of gas rationing on a national scale. Just now, with a postponement from the original date set, November twenty-second, to December first and with many prominent members of Congress opposed to the plan at any time, it remains to be seen what will be done about it. Opponents of the plan cite the fact that with driving generally limited to a thirty-five miles per hour rate, the consumption of gas and the preservation of tires is being pretty well taken care of. We wish to subscribe whole-heartedly to the notion that violators of this speed limit should be put on the "blacklist" in-so-far as new tires, recaps, et cetera, are concerned.

A wartime product, insomnia, seems to be on the increase and physicians are warned to be on the alert in the treatment of such cases, lest they increase the already large army of drug addicts. The barbiturates offer surcease from the long nights of sleeplessness caused by mental worry over war conditions, and the sufferer will grasp at any means of relief. It is our opinion that few of these cases need any treatment other than seeing to it that they have the proper diet and that they get the necessary amount of exercise, plus wholesome divertissement of the sort that gives pleasure, yet makes one just a bit weary.

Nineteen hundred and forty-three is just around the corner, and its coming means much to the medical profession. We will have to work longer and harder; we will face many problems new to us, some of them of the vexatious order, yet problems that will have to be faced and solved. It is of greatest importance that our county medical societies continue to function; it may be that the number of meetings will have to be curtailed in many sections, yet we must maintain our organizations as they now exist. Our boys in the armed forces have asked this of us; they are carrying on throughout the world and have expressed the wish that the "home guard" carry on as well, so that when they come back they will find their local county societies carrying on just as they did before the war. Let's all do our part, even though it often means an added burden to the already heavy load.

Maynard Austin, long-time secretary of his local medical society, is campaigning for fewer medical meetings for the duration. That is, he suggests combining a county medical society meeting with a hospital staff meeting. Also, he is experimenting with the idea of combining certain county society meetings, and apparently is having some degree of success in the undertaking. He also advocates the "full-car load" program; if one is driving to some medical meeting, he suggests calling up the other fellows and use but one car for the trip. It's a clever idea, one that might be used pretty well over the state.

One more problem is being added to the many already facing the medical profession. With many of our smaller communities without a resident physician, the citizens thereof have learned to travel to another community for medical advice. Now that gas rationing looms immediately ahead, just how much of a complex this will bring about remains to be seen. We are advising folk to go to the office of the doctor rather than have him call at the home, except in the more serious illnesses. How many of these will follow this advice is another question. It would appear that in many instances home calls will be increased as a result of the gas rationing.

The American Medical Association Council on Foods and Nutrition has suggested certain restrictions in the use of sugar for sweetened carbonated beverages, and also in some of the candies of low nutritional value. In other words, the council seems to be of the opinion "that the use of sugar should be limited in any form in which it fails to be combined with significant proportions of other foods of high nutritive value." The Council also says that the per capita annual gross consumption of sugar in the United States increased steadily from about ten pounds in 1921 to 108 pounds in 1931, and that the gross consumption has remained at about that figure since.

The final decision in the matter of the drafting of the "teen agers" places an additional responsibility on the medical profession; it means added thousands and hundreds of thousands to our already large armed forces, which in turn means additional medical officers. In many places it means additional time to be given for these physical examinations; it means that thousands of these boys will call on us, prior to the draft, for opinions as to their physical fitness for enlistment in service other than the Army—and, in somewhat like manner, the plan to draft the married men of certain ages, who have no children. The largest army in the history of our nation, then, means much more work for us, hence, it is quite advisable that we begin now to plan for these additional duties.

A little more than three months hence the old familiar "cold sweat" will be dripping off the forehead of the average Hoosier physician, for on or before March 15, 1943, Will Smith, Collector of Internal Revenue for Indiana, will expect a personal letter from all of us, headed, "Enclosed please find check." And, from the comment of the man who for years has made out our personal return, 1943 will be a "honey." This war thing is costing a lot of billions of dollars, with more to come; and these monies can come from but one source, your pocket and mine, so get set for the shock!

We give a lot of advice to our patients about keeping themselves physically fit, yet all too often we fail to observe the commonest rules ourselves. Take the matter of the "common cold"; doctors have this affliction just the same as other folk. They tell the patient thus afflicted to "go home and get in bed and stay there," but when they have a "cold" they keep going—too many of them coming down with a serious illness. "Take it easy" when you are thus afflicted; a few hours' rest will in most cases abort such conditions, thus saving lots of time for the busy physician.

The *Ligonier Leader*, under date of October 28th, has the following editorial comment to make on a matter of great interest to every member of the medical profession. We are quite in accord with the idea, there being no good reason why medical bills should not receive the same attention as grocery and market accounts, et cetera:

ONE MORE WAR PROBLEM

American doctors are beginning to include with their monthly statements to patients a small printed card asking that medical attention be paid for on a strictly cash basis. "We ask your co-operation because of increasing difficulty of bookkeeping facilities."

The wording is dignified and courteous and touches upon only one of many emergencies confronting the medical profession today—that of office help. This is especially true in communities where essential industry is taxing man and woman power to the breaking point.

The doctors' problems are legion; war is taking from civilian life the bulk of the younger medical men, and remaining older doctors are overwhelmed with work. The doctors remaining in home service fully realize their responsibility for maintaining civilian health during this critical period.

Let us not forget that our family doctor is an integral part of an American tradition, and that this tradition has been built, through the years, upon his personal gifts as an individual; upon his integrity, and his character.

Let's pay as we go—and stand by.

Morris Fishbein is quite optimistic in the matter of longevitiy. In a recent article he discusses "geriatrics," declaring that the medical profession rapidly is becoming interested in this important phase of medical care. We quote a paragraph from his comment:

"A new specialty is growing in medical science called geriatrics, which means the care of the aged. More and more physicians will become interested in gerontology, a study of the problems of the aged. The old-age security laws will unquestionably help to mitigate the hardships of those of advanced years who are now economically dependent. The combination of all the various considerations that are now being given to the degenerative diseases, to the hygiene of the heart, the liver and the kidneys must yield an improvement in life expectancy, at least to seventy-five years of age in our time."

The following item appeared in the October twenty-eighth issue of the *Franklin Star* and merits further attention:

"Preliminary reports indicate a definite rise in the tuberculosis death rate. The grim portent of this cannot be over-emphasized.

"Tuberculosis strikes people during the most productive years of their lives. It is prevalent in industrial areas where there is crowding, poor nutrition, overwork and fatigue. Early infection often escapes notice because tuberculosis usually comes with few symptoms. Cure is a slow process involving months and years away from productive activity. And all during the convalescent period the patient is a dead weight burden requiring continuous medical care and the best of hospital or sanatorium facilities.

"In peacetime, tuberculosis was a scourge that was slowly being removed from the national health records by the tireless work of American medical men. It was under control. But war threatens to change the progress made. We are faced with a steadily falling living standard, unprecedented industrial crowding and lengthened working hours. Physical exhaustion will be the rule rather than the exception.

"This country has the best medical system in the world. In the present war emergency, it has given thousands of skilled physicians and surgeons to the armed services. And so naturally the civilian burden on the doctors remaining will be staggering. They are working night and day in the knowledge that the nation's health could easily be undermined if the incipience of disease is not held down. The tuberculosis death rate increase should warn us that the doctor cannot be expected to do the job alone. We must help the doctors to help us by guarding our health as much as possible through our own initiative."

ABSTRACT: URGE THE RIGID CONSERVATION OF ALL SUPPLIES BY HOSPITALS

The waste of hospital supplies, however slight, must be scrupulously avoided if the nation's civilian and military needs in this regard are to be met, the Committee on Drugs and Medical Supplies and the Subcommittee on Hospital and Surgical Supplies of the Division of Medical Sciences of the National Research Council, declare in a joint statement published in the August 1 issue of *The Journal of the American Medical Association*. The statement is as follows:

"The medical profession and hospitals of the country must practice the most severe economy possible in the use of supplies containing materials essential to the conduct of the war. Rubber, metals, fixed equipment, chemicals and drugs must be conserved to the utmost to make the supply last for the duration of the war. Rubber gloves, when torn, should be patched; rubber drainage material should be resterilized and used again. Adhesive plaster contains rubber. Two pieces should not be used when one will suffice. Better yet, none at all should be used if a cotton bandage will be an adequate substitute. Unnecessarily large dressings should be avoided. Catgut must be conserved. Alcohol and other chemicals should be used as sparingly as possible.

"It is expected that hospital supplies will be available in sufficient amount to meet the needs of civilian patients, but only if those needs are reduced to a minimum. Enormous quantities must be supplied to the military hospitals and to our allies, despite the fact that the materials from which most of the articles are made are in demand for other purposes. Waste, however slight, must be scrupulously avoided.

"This program has the endorsement of the Health Supplies Branch of the War Production Board.

"Committee on Drugs and Medical Supplies:
W. W. Palmer, Chairman; Perrin H. Long, Vice Chairman; Morris Fishbein, Evarts A. Graham (ex officio), Ernest E. Irons, E. F. Kelly, George W. Merck, O. H. Perry Pepper (ex officio), John G. Searle.

"Subcommittee on Hospital and Surgical Supplies:
Evarts A. Graham, Chairman; C. W. Munger, Mont R. Reid, Edward J. Sovatkin, G. W. Wallerich."

Commenting on the conservation of important materials used in medical practice, *The Journal* in the same issue says:

"Eventually a shortage may occur, because the supply of basic materials is beginning to be restricted. Obviously the supply of all materials depending on steel, aluminum, nickel, rubber, alcohol, glycerin, quinine, zinc or other similarly important elements is likely to be restricted, because these are the materials that find such specific purposes in the production of the instruments of warfare. There are innumerable ways in which the staffs of hospitals and physicians in their offices may conserve such materials—most important, however, being the avoidance of wastage. Far too often doctors and nurses are careless in their use of adhesive tape, withdrawing from spools more material than is actually going to be needed. Alcohol may be wasted by pouring away used materials that can be easily reclaimed. Rubber gloves with the proper attention will outlast by double the time of their usual life. The American Hospital Association and the staffs of various institutions should aid in this campaign in every way possible. Posters may be prepared by such organizations and by manufacturers of such products which, distributed and posted throughout the hospital, will serve as a constant reminder to the users of the necessity for careful conservation."

(The following appeared in the form of a paid advertisement in the November eleventh issue of the *Hammond Times* and illustrates the effort made by some of the medical societies in trying to educate the public as to the manner in which they can best be served from the limited medical service available. The below advertisement was sponsored by the Lake County Medical Society. The Clay County Medical Society is also running advertisements in its local papers. Evansville has resorted to another method of reaching the public—through the co-operation of the Evansville Chamber of Commerce printed folders were inserted into envelopes of public utilities bills, thus reaching thirty thousand homes. Other societies have, no doubt, used other means, but, however it is accomplished, the important thing is "the conservation of medical care!"—Editor's Note.)

WILL DOCTORS BE RATIONED?

HERE ARE THE FACTS . . .

Every Lake County Physician Has Volunteered

Your doctor, and every other member of the Lake County Medical Society, has signed a statement of his willingness to serve his country whenever, wherever, and however he is needed during World War II.

Seventy Physicians Already Commissioned

Seventy Lake County physicians are already commissioned medical officers, and many of them are already overseas.

Lake County Meets Quota

Physicians are not accepted by the armed forces unless they are declared "available" by the Medical Society's Procurement and Assignment Committee. This committee will continue to make "available" Lake County's proportionate share of the total number of physicians needed by the armed forces. If your doctor is not in uniform, it is because he has been ordered to serve his country in civilian practice. Our present problem is not to get physicians to join the armed forces, but to keep them from joining.

Wounded Soldiers Must Have Doctors

If you have sons or brothers in the service, you will thank God to know that they now have, and will continue to have, enough doctors. Even if you have no one who is dear to you in the armed forces, the least you can do to provide adequate medical attention for the wounds of those who are giving their lives for you, is to conserve the supply of medical care at home so that more doctors can be sent to relieve the suffering of those brave young men in uniform.

Number of Physicians Needed

The Army needs nearly seven doctors for each thousand soldiers. In civilian life, one doctor can care for many more than a thousand persons, IF HE IS GIVEN THEIR CO-OPERATION.

IT IS THEREFORE YOUR PATRIOTIC DUTY TO

OBSERVE THESE FIVE RULES

1. HAVE A FAMILY PHYSICIAN

Don't wait until an emergency arises before obtaining a family physician. If your doctor has gone into the Army, call upon another doctor TODAY, while you are well, and not tomorrow, when you may become ill.

2. AVOID UNNECESSARY NIGHT CALLS

If a member of the family is ailing through the day, call the doctor; don't wait until night. Nearly all night calls are unnecessary, because in most instances the patient could have been seen the previous day.

3. GO TO YOUR DOCTOR'S OFFICE

Don't ask the doctor to come to your home if you are well enough to go to his office.

4. CALL YOUR DOCTOR EARLY

Telephone your requests for house calls early in the morning. This will enable him to route his calls so that it will be unnecessary for him to drive from one end of the city to the other many times each day.

5. OBSERVE THE RULES OF GOOD HEALTH

Keep yourself well so you will not need a doctor. Have an examination at the first sign of sickness; have your family immunized against smallpox, diphtheria, typhoid fever; avoid overeating, overdrinking, overworking, and overexercising.

Observe These Rules and

MEDICAL CARE WILL NOT BE RATIONED

President's Page

VALEDICTORY

The day is done
And ere the stars emerge
From out the twilight's haze
Of rose and gray and purple hues,
We pause to glimpse the newly-risen moon.

We watch the sun
That slowly drops
Beneath the pastel sky
And seems to change our world
To one of dreams alone.

For ere we know
We are submerged in reveries;
A reverie that once again
Surveys the days and years
Now past too long ago.

The first we knew
Were days of play
Neath hallowed hands and eyes,
Who watched our steps
And guided them aright.

Too shortly then
Came days when chores
And teachers' rules
Caused us to wonder more
About the roads ahead.

We craved to know too much,
And what we learned gave less
Than all the joys we hoped to know,
And what we strived to give
Was less than widow's mite.

BUT THEN

Life is a play, made up
Of very many things:
A song, or dance, or speech
And then the curtain rings.
Sometimes we play a lead,
Sometimes a super's part;
Oft'times in plays we're cast
And failures from the start.
Sometimes we get a break
Away from one night stands
And know a full-time season
Before the show disbands.
I wonder if the parts I've played
Have been as good as I
So much have hoped they'd be
Before I'd say "Good Bye!"

M. A. Ruston

SPECIAL HEALTH SERVICES OF DIVISION OF SERVICES FOR CRIPPLED CHILDREN, INDIANA STATE DEPARTMENT OF PUBLIC WELFARE FOR CHILDREN AFFLICTED WITH ACUTE OR CHRONIC INFANTILE PARALYSIS*

HOWARD B. METTEL, M.D., Acting Director
INDIANAPOLIS

I. GENERAL STATEMENT.

In July, 1941, the Division of Services for Crippled Children issued a brochure outlining how physicians and patients could utilize the services of that division in the care of children afflicted with acute or chronic poliomyelitis. This brochure was distributed to county welfare departments, district and county health offices, and made available to members of the county medical societies through their respective secretaries. The services outlined at that time are still available.

Since the distribution of this information, an additional form of treatment of poliomyelitis has been demonstrated and in general accepted by the medical profession.[1] [2] [3] This newer form of treatment, known as the "Sister Kenny method of treatment," has also been widely publicized in the lay press and other official medical bulletins.[4] [5] [6] [7]

Through the coöperation of the National Foundation for Infantile Paralysis and the University of Minnesota, it has been possible for Sister Kenny and the university staff to offer study courses in this procedure to physicians, nurses and physical therapists. Through funds made available from local county chapters of the National Foundation for Infantile Paralysis the Indiana University Medical Center sent representatives of its orthopedic, pediatric, nursing and physical therapy staffs to participate in the study course at the University of Minnesota. After completing the above course, the Indiana staff returned to the Riley Hospital Center and began the application of this new method of treatment.

In July, 1942, the Director of the National Foundation for Infantile Paralysis inspected and approved the Riley Center as a school for teaching the Sister Kenny method of treatment.

Following the certification of this school, the Riley Hospital Center and the Division of Services for Crippled Children of the Indiana State Department of Public Welfare completed arrangements for the training of the field staff of the Crippled Children's Division at the Indiana University Medical Center. Each and every nurse and physical therapist of the Crippled Children's staff has now completed the course and is qualified to teach and apply upon request this type of treatment as a part of the field services offered by the Division of Services for Crippled Children.

II. OUTLINE OF SERVICES.

1. *Hospitalization of Acute Cases.*

Physicians desiring to hospitalize patients who are eligible for commitment or placement in an approved medical center may, upon application to their respective county welfare departments or local judge of juvenile or circuit court, apply to that respective agency and, following social service investigation for eligibility, will be approved for hospital care in an approved hospital center. Those cases placed by the Crippled Children's Division will be sent to one of the following hospital centers,

Indianapolis—James Whitcomb Riley Hospital
South Bend— Children's Dispensary
St. Joseph Hospital
Epworth Hospital
Healthwin Sanatorium
Fort Wayne— St. Joseph Hospital
Lutheran Hospital
Irene Byron Sanatorium

providing that these hospitals are equipped to accept such cases. Those cases who are to enter by the commitment procedure (courts) will be committed to the Riley Hospital Center or any local hospital prepared to admit such cases.

Until such time as the professional staff operating the South Bend and Fort Wayne Centers is completely trained, and due consideration is given as to the dangers involved in transportation of acute cases, most cases will be sent to the Riley

* The above article was prepared by Doctor Mettel while he was still connected with the Indiana State Board of Health. On October first he reported for active duty with the American Red Cross at St. Louis, Missouri.

[1] Daly, et al.: The Early Treatment of Poliomyelitis, *J.A.M.A.*, (April 25,) 1942.

[2] Editorial: *J.A.M.A.*, (December 20,) 1941.

[3] Lewin: The Kenny Treatment of Infantile Paralysis During the Acute Stage, *Ill. Med. Journal*, (April,) 1942.

[4] Pohl: The Kenny Treatment of Anterior Poliomyelitis. *J.A.M.A.*, April 25, 1942.

[5] Cole, Pohl, Knapp: *The Kenny Method of Treatment for Infantile Paralysis*, Booklet published June, 1942, by the National Foundation for Infantile Paralysis and available to physicians from the national or local chapters.

[6] *Weekly Bulletin*, California State Department of Public Health, Vol. xxi, No. 25, (July 11,) 1942.

[7] Sister Kenny V.S.—Infantile Paralysis, by Louis Mattox Miller *Readers' Digest*, Page 1, (Dec.) 1941.

Center. However, this present policy is a flexible one which can be negotiated by the referring physician or agency, the administrative staff at the central offices of the Crippled Children's Division and the hospital admitting offices.

2. *Home Care During the Acute Stage.*

The dangers to the acute case of poliomyelitis which may result from long and improper transportation must still be considered. Therefore, the decision as to the advisability of home care or hospital care must be the responsibility of the family physician. In making this decision, the family physician should consider some of the statements made in the following paragraphs of this article.

3. *Field Services of Crippled Children's Staff to Private Cases Not Eligible for Commitment or Placement Procedures.*

Since the disease of poliomyelitis strikes rich and poor alike, special consideration must be given to the problem of home care of the private case. The Crippled Children's Division will continue its policy of offering consultative services of orthopedic nurses and physical therapists to these cases. Physicians requesting these services must carefully consider the following facts:

A. The responsibility for the complete care of the private case must be maintained by the family physician.

B. The nurses and physical therapists of the field staff of the Division of Services for Crippled Children are few in number and are serving ninety-two counties.

C. This staff will be available to the patient and physician in a consultative capacity only and will not be responsible for the complete care of the patient. These specialists will, however, be able to assist the doctor in carrying out his standing orders and to demonstrate to the family or private-duty nurse the principles involved in the Kenny method of treatment. Likewise, these specialists will be able to assist the physician in demonstrating any other method of treatment ordered by the family physician or the medical consultant. Upon second call from the physician, wherever possible, the field staff will make a return visit to supervise or advise those who have been delegated the responsibility for the care of the patient.

D. The field staff will, in a similar capacity, be able to offer other services as outlined in last year's brochure should the referring physican so request. Home care of the private case, as well as those receiving public assistance, shall always remain the responsibility of the referring physician.

a. Orthopedic nursing service—in counties with a nursing service.

On request and with the sanction of the attending physician, the orthopedic nurse will make home visits with the local nurse to assist her in teaching the family:

(a) Bed rest with protection of muscles, of trunk, and extremities.
  (1) Firm bed with boards between spring and mattress.
  (2) Neutral position to protect muscles from over-stretching through the use of improvised support and restraints to maintain neutral position.
  (3) How to make and use improvised equipment.
(b) Maintenance of a position of protection when
  (1) Apparatus is taken off
  (2) Giving bedside care
  (3) Changing the position of the patient.
(c) On request demonstrations of orthopedic nursing procedures to small groups of nurses—in counties without a nursing service.

With the sanction of the attending physician, the state orthopedic nurses will make home visits to teach the families the above procedures.

b. Physical therapy service.

Upon the request of the attending physician, the services of a physical therapist will be made available. Such service will consist of:

(a) During acute stage—
  Muscle Examination.
(b) During convalescent stage—
  Complete muscle examination following acute stage to determine extent of resulting paralysis and for basis of treatment by muscle re-education during the convalescent stage.

Any request for further consultation on muscle examinations, exercises, and massage again must come from the family physician.

For this service we have available a staff of four physical therapists, who will give a limited amount of consultation service on:

a. Teaching of exercises and massage to person responsible for the care of patient in the home.

b. Teaching of exercises and massage to public health nurses for future follow-up care.

However, it is to be remembered that responsibility for carrying out exercises and massage must rest with the family physician.

4. *Medical Social Service.*

Medical social service will be available for patients hospitalized in the Fort Wayne Medical Center, South Bend Medical Center, and Riley Hospital Center when, for a social reason, treatment is being hampered.

5. *Medical Consultation Services.*

The services of a medical consultant will be available to assist local physicians in diagnosing or recommending treatment on suspected cases of poliomyelitis under the age of twenty-one years. The physician requesting such service must be

willing to prepare a statement to the effect that *the family of the patient is unable to defray the expense of such consultation.*

The service of a consultant may be obtained in the following manner: For those counties in the South Bend area, phone or wire request to Crippled Children's Services, State Department of Public Welfare, Children's Dispensary, South Bend, Indiana; in those counties served by the Fort Wayne Medical Center the request for such services should be made to Crippled Children's Division, State Department of Public Welfare, St. Joseph Hospital, Fort Wayne, Indiana; request for such service from elsewhere in the state should be made to the Crippled Children's Division, State Department of Public Welfare, 141 South Meridian Street, Indianapolis, Indiana.

It is suggested that wherever possible the family physician should utilize a medical consultant who is a certified or qualified pediatrician or orthopedist. These particular specialists usually have had special training and study in the diagnosis and treatment of poliomyelitis. The central office of the Division of Services for Crippled Children maintains a list of such qualified physicians and will be glad to furnish such a list upon request from the referring physician. Arrangements have been made with these specialists for compensation for their services on a case basis. This authorization is for only one consultation visit. All requests for additional consultation visits should first receive the approval from the central office of the Division of Services for Crippled Children in Indianapolis. The policy of the Crippled Children's Division in honoring these additional requests has always been very liberal. Let it again be stated that the responsibility for the future care of afflicted patients remains with the referring physician for all cases who are treated in the home. All cases committed or placed in the hospital centers become the responsibility of the hospital administrators and the respective professional staff of that hospital.

6. *Teaching of Sister Kenny Method of Treatment.*

One of the best means of making this type of treatment available to all local communities and to every afflicted patient would be for local agencies, whether private, public, official or non-official, to encourage their professional staff to receive instruction in the Sister Kenny method of treatment at a recognized teaching center. However, since this is not possible in many localities, the field staff of the Crippled Children's Division is prepared to instruct local groups in the application of the nursing and physical therapy aspects of the Sister Kenny method of treatment. Agencies wishing such instruction may plan such a program by writing the Director of the Division of Services for Crippled Children, 141 South Meridian Street, Indianapolis, Indiana. Many of the full-time county health departments have already arranged for such in-service training programs for their staff of public health nurses and medical directors. Several nursing schools have also made requests for this type of staff instruction. These groups making such requests must consider the size of the Crippled Children's field staff and their availability. Long-time planning and training of local personnel will be of value should Indiana again have poliomyelitis return in epidemic form. Should the disease reach epidemic form, the professional staff of the Crippled Children's Division could be of service to comparatively few patients, since patients may be widely distributed throughout the state.

The time for preparation is now. Do not begin the training of local personnel after an epidemic has started—*begin now.*

7. *Braces, Splints, etc.*

Since no method of complete cure or prevention of poliomyelitis, including the Sister Kenny method, has yet been discovered, many residual or chronic cases will require orthopedic surgery or mechanical aid. One of the additional and important services of the Crippled Children's program has been to provide these services. Many county welfare offices, district health departments and the central office of the Crippled Children's Division in Indianapolis have been supplied with splints. Other mechanical aids that are sometimes used in the early and convalescent treatment and transportation of the acute and convalescent poliomyelitis case may be supplied from the hospital centers or the central office of the Crippled Children's Division.

III. LOCAL FACILITIES TO BE UTILIZED.

Long-time planning as to how to utilize all facilities needed in the proper care of a poliomyelitis case should be reviewed and planned by coöperative effort of all health agencies interested in this particular problem. The following groups should serve as a nucleus for local organization and planning: the county chapter of the National Foundation for Infantile Paralysis, child health committees from county medical societies, public health nurses, local hospital administrators, district nursing associations, county and district health officers and sanatoriums. Each of the above organizations can contribute to good local planning, not only for adequate medical care of the acute and chronic cases, but also the preventive aspects of the disease. Since the virus of this disease is known to be carried by sewage and excreta, careful investigation into environmental sanitation of a given local area should be given immediate consideration and investigation. Never before was this so urgent as now, when, because of the war, there is such a migration and concentration of large masses of people—both to military areas and areas containing large defense plants. Likewise, one of the functions of the above group would be to survey a community for all children afflicted with crippling conditions. After this

survey these groups should be instrumental in seeing that all such afflicted individuals receive the benefit of good medical or surgical care from private or public resources. The laws of the Indiana state legislative assembly have graciously provided that no crippled child in Indiana shall suffer from lack of available medical care where such care is not obtainable from private sources. (Indiana Social Security Act of 1936, Welfare Act of 1936, Amendment to Welfare Act of 1939.)

SUMMARY

An attempt has been made to outline for physicians and patients some of the services that are available to them through the Division of Services for Crippled Children of the Indiana State Department of Public Welfare. Cases receiving care under this program are children under twenty-one years of age who are afflicted with acute or chronic poliomyelitis and have been accepted through placement procedures to the Crippled Children's Division.

An appeal has been made to local health organizations to arrange and plan for mobilization of all resources, local or state, so that the best care for an afflicted child may be provided. It has been emphasized that the time for such organization is now and not later. Do not wait until the community is suddenly struck by the terror of this disease.

This article is not prepared as the result of any epidemic now prevailing in Indiana. (Total cases of acute polio from January 1, 1942, to August 1, 1942—26, according to Indiana State Board of Health morbidity reports.)

The purpose of this article is to announce the additional health services now available to the children of Indiana as offered by the Division of Services for Crippled Children of the Indiana State Department of Public Welfare.

REPORT ON HOT SPRINGS CONFERENCE

GEORGE W. BOWMAN, M.D.
A. F. WEYERBACHER, M.D.
INDIANAPOLIS

The Conference on Venereal Disease Needs in Wartime was held in Hot Springs, Arkansas, under the auspices of the United States Public Health Service. Surgeon General Thomas A. Parran, presided. The meetings were held in the Arlington Hotel in conjunction with the eighth annual meeting of the American Neisserian Medical Society. Approximately five hundred attended the meetings on October 21, 22, 23, and 24, representing all the national organizations interested in the field. Nearly every state in the Union, and some of our possessions, as well as several foreign countries were represented. Most of those attending were Army, Navy, United States Public Health Service and state health authorities working in the field of venereal disease control. Among other organizations represented were the American Social Hygiene Association, American Public Health Association, and the Social Protection Division of the Office of Defense Health and Welfare, and Works Progress Administration.

The conference began on the afternoon of October 21, and continued with an interest and intensity that rarely has been equalled by national conferences. The majority of those present attended all sessions. The session devoted to Technics of Venereal Disease Education was opened on schedule by Assistant Surgeon General R. A. Vonderlehr, Chief of the Division of Venereal Diseases, United States Public Health Service. The afternoon conference was largely devoted to the reporting of activities from various parts of the country, including that work being done by the official and unofficial agencies in the field. It was repeatedly emphasized that the approach to venereal disease today must take a lesson at the knee of national advertisers, as it was stated by one man, "Denmark and Sweden did not sell venereal disease control by ethical advertising." The point in this connection was that education must be made simple, direct, honestly frank, and repeated again and again. The field of visual education has only begun to be exploited by use of carefully prepared publications with effective illustrations, of quality posters, and motion pictures. The education exhibition emphasized the remarkable advance along these lines made in the last year.

The conference was officially opened in a welcoming address by Surgeon General Parran on the morning of October 22. The topic of "Venereal Disease Control Measures Influencing the War Effort" was discussed from the viewpoint of the Selective Service, by Lieutenant-Colonel Richard S. Eanes, assistant director, Medical Division, Selective Service System. The plan of the military to set up a rehabilitation system for venereally infected draftees was traced. The plan, in essence, is that of creating venereal hospital centers for the purpose of receiving and adequately treating the sizeable reservoir of manpower that has been previously rejected. It was brought out that draft boards have long lists of men who could be and should be in the active military service. It is now the plan to treat these men under a military discipline, since they failed to cooperate previously by taking voluntary treatment. Approximately

four per cent of inductees have presented acute or chronic gonorrhea in Selective Service Examinations. These will from now on be accepted for military service. Two hundred eighty-three thousand cases of positive blood tests have been discovered by the Selective Service System, one hundred ninety thousand of whom were negroes.

Lieutenant-Colonel T. B. Turner, director of Venereal Disease Control Division, Preventive Medical Service, United States Army, complimented the work that has been done in protecting the soldiers from venereal disease around the many posts throughout the nation. The Army faces a problem in being critically dependent upon the cooperation of civil communities about the military camp. All social agencies contribute to the behavior of the soldier and influence the venereal disease rate of the army camp, but the heaviest burden is carried by the health and police authorities. The incidence of venereal disease in the new Army is the lowest under wartime conditions, and is, at present, far below the incidence expected at the present time. There continues to be a steady decline in the number of contacts to commercial prostitutes. It has been shown that the girl making multiple contacts becomes the greater source of venereal disease. In this, the prostitute who is commercializing is a relatively greater factor in the spread of venereal disease. The number of health certificates held by a prostitute serves only to fool the public. The military approach to the problem of venereal disease control has been somewhat different in this war. It can be roughly divided into three major activities, epidemiology, education, and prophylaxis. In order to carry out this type of program the Army, as well as the Navy, have appointed full-time specially trained personnel responsible for the coordination and operation of its venereal control programs. This program involves a close liaison of the military with civil health and enforcement agency authorities.

The present social conditions about military areas have created some new problems in the use of prophylaxis by troops. Chemical prophylaxis needs to be prompt and, hence, readily available. At present, in our cantonments the troops scatter out in so many directions that prophylaxis distribution from fixed stations has been extremely difficult and often extravagant. Considerable effort and thought has been placed on a solution to the problem, and one of the most recent steps has been the provision of a chemical prophylaxis kit, containing both mercury and silver salts in separate tubes. The use of prophylaxis by troops is now dependent on education rather than punitive measures. Some research has been carried on with sulfone prophylaxis. The reports, notably from the Navy, have shown considerable promise. It possesses certain advantages, for example, simplicity, availability, and a more liberal time factor, but the method also possesses certain disadvantages or unknown factors. The method does not afford protection from syphilis and constitutes a general use of a potentially dangerous drug. There is some question as to the margin of safety in repeated use over long periods of time.

Doctor J. E. Moore reported on the contribution of the Sub-Committee on Venereal Disease of the National Research Council. This committee "the itch on the military," has urged the adoption of a number of policies now in effect with the Army and Navy, for example, the establishment of full-time specialists on venereal disease control and the training of others in that field. The short term twenty-six-week course of therapy for syphilis, now in use in the Army, was originally recommended by this group. It was further stated that in the future some type of therapy given in four, six or eight weeks, and now under clinicial trial, may be more desirable than the "five-day drip" massive arsenotherapy. Also recommended and accepted by the Army has been the five-day, twenty-gram course of therapy for gonorrhea, and the general use of fever therapy in all refractory cases. Another recommendation of this committee was the abolition of all punitive measures against the soldier for contracting venereal disease.

Dr. P. S. Pelouze commented that sulfathiazole is the drug of choice for the treatment of gonorrhea, with sulfadiazine as the alternative. Results not obtained within five days of treatment are generally not much improved by longer treatment, and rarely by repeated rounds of the drug. It was recommended that four grams be the average daily dose. It is felt that some type of fever therapy should be utilized in those cases proving refractory to this treatment. An outline of improvised fever therapy was recommended by Dr. Stafford L. Warren, of the University of Rochester. This is a "five-day" bathtub technic that combines the use of sulfone with temperature. The patient is placed in the tub and his temperature raised to one hundred and five degrees twice daily, while receiving four grams of sulfathiazole. This routine should be repeated daily for five days. The chief preparation of the patient consists of adequate sodium chloride and water. Dr. Pelouze also recommended bed rest the first two days of treatment, and the delaying of prostatic massage for at least six weeks after acute symptoms. Irrigation and the use of local treatment is good management in the hands of a practiced and competent physician, but is not recommended in the Army routine.

In regard to therapy of gonorrhea in the female, the following points were emphasized by Doctor Robert M. Lewis, of Yale University. Chemical prophylaxis in the female is unsatisfactory in any form we have at present. It is time for us to reconsider gonorrhea in the female in the light of the epidemiologically positive case. The clinical diagnosis of gonorrhea should be made in women, even in the absence of positive laboratory evidence, in those cases of contact with a confirmed positive case in a male partner. The culture, rather than the smear or clinical evidence, is a better criterion of diagnosis. Acute gonorrhea in the female, con-

trary to common conception, often does not present the acute clinical picture. Positive cultures can be obtained from normal appearing cervices. In the field of experimental therapy it was brought out that a one-day treatment of one gram of sulfone per hour for seven hours for a total of seven grams, or a similar modified plan, may have possibilities. Certainly such a plan can show far better results than a schedule of two grams of sulfone per day extended over ten days. He further stated that our recent studies have shown that much of the vulvo-vaginitis in children is not, as has been thought, due to the gonococcus. The epidemics from toilet seats are an exceedingly rare factor in the spread of this disease among little girls. The culture was again recommended as a more accurate method of differentiating the gram-negative neisseria, especially in the young female.

Dr. C. M. Carpenter, of the University of Rochester, discussed new improved technics in culturing the gonococcus. There is now no problem in the laboratory, but the problem is in transmitting the culture to the laboratory. Culture material must be protected from drying during transfer from the patient to the media. Exposure to air is found to be far more damaging than temperature. Culture material should not be taken during the administration of sulfones, nor for about forty-eight to seventy-two hours after discontinuation of the drug. Urine sulfone will destroy the activity of gonococcus for culturing purposes. The culture can be shown to be two-hundred to three-hundred per cent more effective than smears in detecting the asymptomatic carrier of gonorrhea.

There was general discussion on the program for repression of prostitution, and the work in various parts of the country was compared. A motion picture of the Leesville (Louisiana) Rehabilitation Camp was shown. This program provides for the voluntary and involuntary commitment of diseased females into a barrack type of field hospital. During the period of incarceration an attempt is made to classify and determine the particular occupation for which the girl is best fitted to carry on a normal useful life. Upon release, the girls are placed in employment, and it has been the experience that these girls have justified the investment. The program for rehabilitation of prostitutes has found remarkable success under our present wartime conditions.

Reports were given by the Johns Hopkins Hospital group on the progress of newer arseno-therapeutic research. Credit was given to the Mount Sinai group, who in 1933 began a new trend of thought in the treatment of early syphilis. Since this time the years of continuous intensive research have made it clearer and clearer that the conventional therapy for syphilis is too long, too expensive, and often not applicable, and that certain new technics possess the power to more adequately control at least the early case of syphilis. It may be that the five-day continuous drip is not the ultimate answer, but our evidence now points toward the fact that the end results depend very largely on the intensity of therapy in the early weeks of treatment. Bismuth will be found to take its place in the future intensive therapy schedule.

It may be said that the conference brought together the people who are most involved in gaining a solution to the problem of venereal disease control. It would be impossible to mention all those notables who were present or who even had a place on the program. Indiana was represented by Dr. George W. Bowman, chief of the Bureau of Venereal Disease Control of the State Board of Health; Hugh L. C. Wilkerson, P. A. Surgeon, United States Public Health Service; Dr. A. F. Weyerbacher; Dr. John T. Day; and Lieutenant John Winebrenner, Venereal Disease Control Officer of Camp Atterbury.

(This paper was written with the aid of the very complete notes made by Lieutenant Winebrenner. We are most grateful for the use of them.)

PHYSICIANS' RESPONSE TO THE ARMED FORCES

The Directing Board of the Procurement and Assignment Service is pleased to announce that 95 per cent of the 1942 procurement objective of medical officers for the armed forces has already been met. Toward this total a number of states have supplied more than their share of physicians and only a few states are lagging behind in their quotas. It is from these states that the additional physicians needed during the current year should come.

The recruitment of such a large number of physicians in a few months is a remarkable achievement and another demonstration of the traditional patriotism and unselfishness of the medical profession. In this achievement, and particularly in those of its members who are "in service," the profession can justifiably take pride.

The end, of course, is not yet. Increases in the armed forces will necessitate more medical officers and additional demands will be made upon the profession for medical services in critical war production areas. The Directing Board is convinced, however, that the physicians of this country will respond to future calls for service, whatever they may be, in the same splendid manner with which they have already volunteered for service with the armed forces.

Frank H. Lahey, M.D.,
Harold S. Diehl, M.D.,
Harvey B. Stone, M.D.,
James E. Paullin, M.D.,
C. Willard Camalier, D.D.S.,
of the Directing Board.

(Because of the foresight portrayed in the following article, which was published in the August 15, 1940, issue of The News Sentinel, Rochester, Indiana, we think it merits reprinting in THE JOURNAL, for it conveys a most important message. The preservation of our democracy is even more at stake than it was in 1940, and we must be united in our fight for freedom, not only for our Americas but also for our fellowmen across the sea.—Editor's Note.)

MOBILIZATION AND PREPAREDNESS*

CHARLES R. BIRD, M.D.
Chairman War Participation Committee
INDIANAPOLIS

"Peace such as we have known is slowly dying just as it expired in Europe.

"Make no mistake! The only respect for the United States in the future by other nations will be the respect for armed force!

"Our fate is swollen with menace, which lies like a guilty secret between our enjoyment of today and our hope of tomorrow.

"The leaders in Europe sat at the bedside of a dying peace so long they could not realize a crisis was at hand and when war came it was like a premature birth." In reality we are at war in this country!

A PSYCHOLOGICAL WAR

"It is a psychological war. An organized conflict of group-wills. Ideas are used as weapons to produce tremendous impacts on human beings. The mind is the battle-front. It raged in Europe before the first gun was fired. It will still rage when diplomats gather under chandeliers to dictate peace. The drama of Europe lies in the clash of ideals and the tug of contradictory loyalties, pitted one against the other.

"Out of the inhuman diplomatic crises, such as Munich, and collective tragedies, such as Austria and Czechoslovakia, came the catastrophe of war itself."

PUBLIC OPINION DEMORALIZED

Emotional attitude is always in a state of flux. By what standards are we in this country to adjust ourselves as we consider the fluctuations of the battle in the war of the mind and the conflicting forces trying to influence public opinion? Public opinion becomes demoralized and confused by ideological quarrels. People already have been swept into groups so radical that the left calls the right "warmongers," and the right calls the left "fifth-columnists."

It is important to understand then that mobilization implies something more than money, munitions, implements of war, and a massing of troops. We are prone to think in terms of landing fields and aircraft in the sky; of lines of motorized infantry, mechanized artillery and squadrons of armored cars on the march or in great training centers. Coincident with all this must be mobilization of the nation's spirit and psychological resources.

National disunity can be as large a factor in defeat as enemy weapons, but poisoned psychology can not be neutralized by force nor ideas combatted by weapons. It is unfortunate that we find ourselves in a state of national disunity as to preparedness.

If we are to have an air force of great size, we must have pilots and observers to fly them to the number of two thousand for each one thousand planes; we must have trained personnel on the ground, numbering ten thousand men for each thousand planes, to keep them in the air. Fifty thousand planes would, therefore, mean trained personnel of 600,000; the Navy is to be doubled, and the Army to expand to 1,000,000, 2,000,000, or perhaps 4,000,000.

When we realize that the National Guard and Regular Army can not expand to present peacetime quotas by voluntary enlistment, we know that the numbers needed in our program of defense can come only through selective service or conscription. And yet we find a considerable proportion of people opposed to conscription.

Men must be trained in the tactical use of modern implements of warfare and must have a knowledge of their composition and mechanics. It requires months to make a soldier. He can't be created overnight. William Jennings Bryan once said, "We don't need a big army; we can mobilize an army of a million men overnight." The fact is that only an untrained mob can be mobilized overnight.

FAKE SENSE OF SECURITY

Again we have people opposed to the principle of universal military training. People lull themselves into a false sense of security by depending on 3,000 miles of ocean expanse. "Who," they ask, "are we going to fight?"—forgetting that it was such ostrich-like attitude that brought disaster to France and jeopardizes England.

Months are required to gear industry and labor to war production; months to translate paper plans and contracts into war material; and months to create, organize and train an army. Under the old Infantry set-up thirteen months are required for an infantry division.

* Address delivered before Kiwanis Club, Rochester, Indiana, in 1940.

NEED POWER FOR OFFENSE

Preparedness does not mean for defense alone. We must be prepared to the point where we have the power of offense. In war, if the power of offense is lost the issue is lost.

Public opinion is not mobilized either for defense or offense. Who better than the members of this group, or the doctor as he sees his patients, is more prepared to crusade in this cause?

"Shall we wait until we see our people killed, our homes destroyed, and the woods and fields, which are our heritage, horribly annulled? Shall we wait for the day when we may know fire as a pursuing enemy, hunger and thirst as our companions, so well that sudden death becomes a friend?

"We must not trade a few days of false security for ruin worse than any pain, for a peace on German terms that would not be peace at all. We should never know peace again, and our children would not see its return. Our young men would be sent away to fight German battles eleswhere and would come back trained to machine-gun civilian refugees and all guilty of insubordination to a Hitler." Everybody would be forced to labor for not a penny more than necessary for bare subsistence, the rest to go to pay for imbecile wars. Our background would be one of fear of the concentration camp, the absence of tolerance, and our lot would be the lot of the Czechs and Poles.

TIME FOR SELF-ANALYSIS

It is time for self-examination to determine whether our particular circumstances and frame of mind, in our attempt to foretell what predicaments of war may bring us, may not lead us to become a trouble to our leaders and executives and connive at our own enslavement.

The Treaty of Versailles began the destruction of the new German Republic by *preventing* universal training. Anxious to keep Germany militarily weak, it allowed an army of only 100,000. This army was reconstructed by officers of the old Hohenzollern tradition, based upon a rigid caste system, and a paternalistic state socialism.

This army gave Hitler his first opportunity by engaging him as a speaker and subsidizing his paper. On the shoulders of that army he was raised, and by its aid he overthrew the republic. He instituted universal military service to strengthen and serve the regimé he had created.

If the German Republic had had its own army—the army of all the citizens—organized to defend the republic, and a free cooperative Europe, the German Republic would be standing today.

In its composition, an army must be of the form and state it serves; otherwise it will rule the state. Japan is an example. A state that has not an adequate army perishes. If it has an army rooted by universal service in the pervading philosophy of life, it will defend that philosophy of life.

HATE NAZISM

In this country we hate Nazism, its ideals and purposes, its contempt for man, its glorification of war as an end in itself, the turning of youth into physical heroes and moral cowards, its lies, its desire to mobilize the worst instincts, and the turning of children into spies against their parents!

We face the proposition that the struggle for liberty is demanding and is worthy of great sacrifice. The man or the people who are not willing to relinquish comforts now, and accept the disciplines of freedom, are not only unworthy of being free, but are already conquered. Universal service is *NOT* undemocratic. General Johnson tells us that it reaches back to racial and religious antiquity.

Liberty came prominently to the surface as a product of the French Revolution and was closely coupled with the idea of freedom. Freedom carries with it the right and the obligation to defend that freedom. Democracy begins to decay with the concept that it is an aggregation of rights attended by no complementary responsibilities. In a democracy certain contingents of society are allowed to sabotage preparedness.

If England falls as France fell, some of the dominions may revolt and cripple themselves through civil war. Those possessions that remain loyal will of necessity conform to the pattern of England, which will be Nazi and which means that, together with the island and colonial possessions of France, Holland and Belgium will be Nazi tools and bases. Just as France has been turned into a weapon against England, so all these together with the British navy, may be turned against us. We will no longer have the British navy behind us in the enforcement of the Monroe Doctrine. With the fate of England hanging in the balance, we live in the midst of momentous times. If our country is in danger, is it not better that your sons learn about the job of being a soldier in peacetime? Or shall he be rushed into war, green and untrained?

The Journal
extends to its readers a
Merry Christmas

THE PHARMACIST AND VD CONTROL

The physician-pharmacist relationship which has existed in this country for many generations is more than a mere tradition. It is rather a natural outgrowth of the close interdependence between physician and pharmacist in a common endeavor, namely, that of healing the sick. Thus, both the pharmacist and the physician bear a joint responsibility to society—to the people whose well-being depends greatly upon their intelligent coöperation.

Within this triangular picture of the pharmacist, the physician, and the people are the numerous public health services whose broad function it is to serve the health needs of the community on federal, state and community levels.

The war effort has pointed out the individual responsibilities of these allied health forces, and at the same time has strengthened their interrelationships in the united drive against diseases which sap our national strength.

Foremost among war-time health problems are the venereal diseases, which in World War I caused seven million days lost from service in the United States Army. As for the population generally, one person out of every forty-two has syphilis now! Although the actual prevalence of gonorrhea is not known, it is estimated that it strikes from three to seven times as often as syphilis!

A nation-wide effort to eradicate syphilis and gonorrhea through a program of effective control is being coördinated by the United States Public Health Service. With funds appropriated by the Congress, and state, city, and county health departments, full-time professional venereal disease control workers have instituted vigorous measures to deal with the VD problem in every community. But no health control project can be termed effective without the aid of the pharmacist.

Given a national and a community VD control plan, how can the pharmacist serve within the framework of the triangle described above? An attempt has been made in the following outline to define in broad scope the responsibility of pharmacists in the VD control effort.

The Pharmacist as an Educator:

The pharmacist is an important influence in preventing the spread of venereal diseases, because persons who have these infections frequently go to him for advice or medicine. The pharmacist can make clear to the public that venereal diseases are dangerous, and that to act on the assumption that they are a trifling matter is more dangerous still. He can call on the state or local health department or the state pharmaceutical association for a supply of easy-to-read literature —attractive folders, leaflets, pamphlets, et cetera— for free distribution to customers. He can avail himself of colorfully and effectively designed posters from his state or local health department for display in his window or elsewhere in the drug store. He can secure the ready advice and coöperation of such agencies as the Joint Committee of the American Pharmaceutical Association and the American Social Hygiene Association, the National Association of Retail Druggists, and the United States Public Health Service. Education is a vital arm in the prevention and control of venereal diseases. The pharmacist is excellently placed to serve an educational role in the community.

The Pharmacist as a Personal Influence:

The man who has (or thinks he has) a venereal disease, and consults his pharmacist rather than a physician, is usually laboring under a misconception that the disease is not serious enough to warrant a physician's attention, or that he can obtain just as effective treatment more cheaply by using a proprietary preparation sold without a prescription. In either case he is asking the pharmacist, "What should I do about my ailment?"

In such a situation, the very presence of a venereal disease victim in a drug store is fair testimony of the customer's strong personal confidence in the pharmacist. The pharmacist can easily enhance this confidence and add to his good will by exerting his personal influence to guide the customer on the proper course. He can point out the serious character of venereal diseases and the necessity of protecting the individual and the community. He can explain that it is always dangerous to treat oneself with a so-called "remedy or nostrum" and assume that one has been cured of syphilis or gonorrhea. He can refer customers who ask for such products to a reputable physician or to a clinic which provides diagnosis and treatment for venereal diseases. He can emphasize that the customer may have a different disease, requiring different treatment from the one he thinks he has, or that he may not even have any disease; that a physician is trained to diagnose these diseases with the aid of physical examinations and technical laboratory tests. The pharmacist who knows the dangers of venereal diseases and yet continues to diagnose them or recommend or sell remedies for their self-treatment does more than violate a fundamental ethic of his profession. He becomes a contributor to whatever disastrous results may follow improper treatment or neglect.

The Pharmacist as a Citizen:

As a citizen, it behooves the pharmacist to help further the venereal disease control effort in his community by urging and supporting state and local legislation designed to lower the incidence of syphilis and gonorrhea. In some states the pharmacist can enlist in the legislative campaipns sponsored by his own pharmaceutical

organizations, by the American Social Hygiene Association, and by other health and civic groups in promoting the enactment of premarital and prenatal laws for blood tests for syphilis. He should familiarize himself with all these activities. He can support legislation opposing advertising of fake cures by quack doctors and prohibiting the sale of remedies for venereal diseases except by a physician's prescription. He can join the front-line forces that are fighting for stricter laws and repressive measures against prostitution. As a citizen, he can insist on adequate treatment facilities for venereal disease control in his community. Adequate facilities mean sufficient clinics that function at convenient hours at night as well as in the morning and afternoon.

By participating actively in the venereal disease control program being promoted by the United States Public Health Service and state health authorities, and by the Joint Committee of the American Social Hygiene Association and the American Pharmaceutical Association, pharmacists of the country will strengthen public confidence in their profession. At the same time they will know personally that their best efforts are being given toward the elimination of the venereal disease scourge, both for the best interests of the civilian population and for the greater fighting efficiency of the armed forces of the nation.

UNDER THE CAPITOL DOME

PREVIEW OF STATE BOARD REPORT

Ramifications of the war effort have greatly increased the responsibilities and problems of local health administration within the past year, Dr. George M. Brother, director of the Local Health Administration Division of the Indiana State Board of Health, will say in the forthcoming annual report which will appear in the state *Year Book*.

The *Year Book*, which contains detailed reports from all state departments, boards, and commissions, is now being edited and prepared, and in all likelihood will be ready for distribution next month. Dr. Brother will point out that his division has been faced with the task of assisting local units of government in their adjustment to the many new health problems with which they have been confronted. An accompanying chart shows, graphically, that Indiana has indeed become the "arsenal of Democracy," with major war industries and cantonments scattered over an exceedingly large area of the state.

An enlightening fact which Dr. Brother will bring out in his forthcoming report is that the health programs of the districts represent only an intensification of routine and established principles of good public health practice. He will point out, too, that "while the emergency has made it necessary for the State Board of Health to give much direct assistance to these local units of government, it should be borne in mind that the ultimate responsibility for local health services is a local responsibility."

He will point out, also, in his report that four major events of public health implication have occurred in the state during recent months. These are:

(1) Development throughout the state of vast industrial plants and areas, with the consequent shift in population.

(2) Establishment of cantonments and training schools for the armed forces.

(3) The depletion of practicing physicians due to supplying the armed forces.

(4) The loss of trained public health personnel to the armed forces.

The problem of personnel becomes more acute from day to day as the needs of our military forces become more apparent. Dr. Brother will give this picture of the program: "The major objective of the health program in defense areas is to keep the war effort at its peak of efficiency. In addition to providing the major inspection and administrative services to protect the public health, the district health departments, with their full-time health personnel, co-ordinate the activities of the various local agencies working toward this end. The personnel in each district consists of a medical director, who is a physician with advanced training and experience in public health administration; one or more assistant sanitary engineers; a staff of public health nurses; and office clerical help. Consultant service from the various divisions of the State Board of Health is available and utilized freely."

The sudden influx of workers from all sections of the country to new industries, developed in areas heretofore rural, has resulted in housing problems, and as a result of housing shortage this state has been introduced to the problem of controlling huge trailer camp developments. In handling the trailer camp problem the State Tourist Camp Law has been enforced, but this law proved inadequate and the state department has suggested to local officials additional local control measures to meet the situation. In many instances the recommendations of the state department were followed.

Other health problems which have been outgrowths of the boom-town era of war production will be cited in Dr. Brother's report. These include the "overwhelming load" on existing water supply and excreta disposal systems; the need for more satisfactory sanitary regulation of the increasing

number of food-handling establishments; the need for more adequate supervision of the production and distribution of milk; a system for garbage and rubbish collection; and "the host of duties necessary for the suppression and control of communicable diseases, including isolation and quarantine of cases, immunization against certain diseases, and treatment facilities for others, such as venereal diseases."

The report will point with justifiable pride to the fact that to date no severe outbreaks of food poisoning or filth-borne diseases have developed in the boom-town areas. This has been the result of the fact that the basic fundamentals of sanitation, rather than the "frills" have been striven for. "A safe water supply, adequate facilities for thorough dish-washing, to break the chain of contact from one diner to the next, healthy food handlers, and pure food have been considered to be more important than the amount of chrome plating in evidence, as well as other attractive but less important features."

ABSTRACT: EXPLAINS METHOD OF OBTAINING AUXILIARY RATIONS OF FUEL OIL

The method by which households in the thirty designated states in which fuel oil rationing has been placed in effect may obtain auxiliary rations to meet special health needs is explained by Joel Dean, director of the Fuel Rationing Division of the Office of Price Administration, in a letter to the editor of *The Journal of the American Medical Association* published in its October 10 issue. Commenting on Mr. Dean's letter, *The Journal* summarizes the plan as follows:

"Illness, old age or infancy may make necessary auxiliary rationing of oil; consumers may obtain such auxiliary rations by applying to the local rationing board, accompanying the application with a certificate from a licensed physician. In supplying such a certificate the physician is to give the date, the name and the address of the householder. Furthermore, he must certify the nature of the illness, whether acute or chronic, whether or not it is of the type requiring higher indoor temperature, the approximate temperature required and the approximate period for which the supplemental base heat is needed. The physician may at his discretion state the nature of the illness or may give additional information that will be helpful. The applicant himself files the certificate with the local rationing board. Furthermore, as a check, advisory committees are to be set up for each local rationing board. These advisory committees will include two licensed physicians and the county or local health officer. They will review cases in which certificates are questioned or in which a professional opinion is desired. Thus comes to the medical profession another call for its special services in wartime. Civilian physicians will no doubt do their utmost to aid in this work as another contribution to the war effort."

In his letter to the editor Mr. Dean explains that:

"'Enemy action and the greatly increased burden of the war effort have so seriously curtailed the transportation of petroleum products that households this winter can be heated only by limited supplies of fuel oil; consequently the problem of maintaining health in temperatures lower than usual is not only difficult but must be solved to prevent illness. Before the war the East Coast received about 95 per cent of its oil by means of tankers. So many of these tankers have gone down that an extremely serious dislocation in our petroleum distribution system has come about. In view of the resultant urgent necessity to share limited supplies fairly, the Fuel Rationing Division of the Office of Price Administration has drawn up a plan for the rationing of fuel oil in thirty states designated by the War Production Board. The fullest patriotic cooperation of your profession will be necessary and without doubt will be given.

'Basic rations for fuel oil will be alloted householders by the Office of Price Administration through its rationing boards. This ration will be based on past consumption (adjusted for normal weather) and on the thermal efficiency of the house as indicated by a heat loss floor area formula developed and tested by top flight heating engineers. Provision will also be made for auxiliary rations to households in which illness or the infirmities of old age make necessary temperatures higher than that afforded by the basic ration. . . .

'The success of the rationing plan in meeting the fuel oil emergency equitably and effectively will depend in large part on the kind of patriotism and conscientious cooperation that the medical profession has always given in times of emergency.'"

TRANSCONTINENTAL SHOPPING BY AIR FOR SOLDIERS AT ADVANCE BASES

What does the American serviceman stationed in the Southwest Pacific battle zone buy with his money? An answer was had some months ago when Red Cross field directors at Port Darwin, Australia, Port Moresby, New Guinea, and in New Caledonia undertook several transcontinental buying trips by air.

Red Cross Field Director Peter Croes of Port Darwin pioncered the plan when he obtained passage via Army transport plane to fly 1,500 miles to the nearest shopping center. Word got around on the grapevine of the projected tour, and when he took off, he had a shopping list four feet long and $2,000 to spend. Prominent on this list were cases of soap, shaving brushes, phonographs and records, lighter fluids and flints, and embroidery needles.

Field Director James Stewart, at Port Moresby, had an equally diversified list. It included 200 harmonicas, 2,000 candles, chewing gum, pipes, knives, thousands of razor blades, barber clippers and shears, bingo games, and horseshoes. He had to compromise on a request for three alarm clocks, as he found only two when he went to buy them.

New Caledonia is a fisherman's paradise, and the list which John Carney, Red Cross field director there, took to town was top-heavy with hand lines, sinkers, feathered lures, and hooks. But he was also bidden to purchase medical books, flat irons, photo supplies, and a pair of camco earrings for the chaplain's wife.

One of the principal troubles on such a shopping tour, according to Red Cross representatives, is not the great distances, but the fact that so many items are strictly rationed. As a result, Army nurses fared rather badly. Their requests ran to silk stockings, pajamas, and sundry feminine clothing. Without individual ration books these simply were not obtainable.

WHAT WENT ON DURING WORLD WAR I

(Items from The Journal of December, 1917.)

The scientific section of THE JOURNAL was devoted to a symposium on diseases of the gallbladder. The medical phases of the subject were discussed by Drs. A. C. Kimberlin and Charles R. Sowder, while the surgical aspects were handled by Drs. H. H. Martin, of Laporte, and H. A. Duemling, of Fort Wayne. The discussion of these papers occupied several pages of THE JOURNAL, numerous Indiana men engaging therein.

* * *

The editor again attacked certain of the secular press regarding some of its advertising; he opined that religious publications should not accept questionable medical advertising even though they came back at him with the statement that a then-existing medical magazine, the *Medical Standard*, published the same advertisements.

* * *

Straight editorial comment was limited to two subjects, "The Significance of the Widal Reaction" and "Opponents to Advances in Medical Science."

* * *

THE JOURNAL announced that for the year 1917 the state dues would be advanced from two dollars to four dollars. The two-dollar rate had been made some years previously, and for a long period state dues were one dollar.

* * *

Get this! The Chamberlain Bill, covering universal military training, was a "hot" subject in the Congress. Editor Bulson subscribed to the opinion that the law should be enacted, and set forth many arguments in favor of such a plan. (Remember, this was twenty-five years ago. The world do move!)

* * *

The Indianapolis Medical Society had voted to pay the state dues of all their members in service, amounting to $240.00 per year.

* * *

Smallpox had reached epidemic stages in several parts of Indiana, and the editor got quite a "kick" out of the reported statement that the cultists, et cetera, could not be induced to go near such cases.

* * *

The headquarters' office had established a speakers' bureau, a central exchange whereby speakers at medical meetings over the state might be properly assigned. It was felt that a man who had written an exceptional paper should be invited to read same before several county societies in the various sections of the state.

* * *

Frank F. Hutchins, Indianapolis, had been promoted and was commissioned a major in the Medical Reserve Corps.

Secretary Charles N. Combs was in military service, and county secretaries were advised to make all dues remittances to Executive Secretary Schortemeier.

* * *

Carleton B. McCulloch, Indianapolis, had been promoted from captain to major in the Medical Reserve Corps.

* * *

Dr. Arthur E. Guedel, Indianapolis, who had been stationed with Base Hospital No. 15, in France, had been transferred to a hospital in Paris, which had been established by a wealthy Parisian woman for the purpose of caring for American soldiers.

* * *

Captain Paul F. Martin, Indianapolis, had planned to be married as of December first, to an Indianapolis young woman; rather elaborate plans had been made for the ceremony, when Captain Martin received orders to report at Fort Harrison at 3:00 P.M. that afternoon. There was much scurrying about, and the ceremony was finally performed at 2:47 P.M., causing Captain Martin to break all records in getting back to the Post before the dead-line. He is reported to have made it!

* * *

Dr. Waldo Farnham, Fort Wayne, had been promoted to a captaincy and was on his way to "somewhere in Europe."

* * *

First Lieutenant, Charles C. Crampton, Delphi, had been transferred from Fort Harrison to Fort Devan, in Massachusetts.

* * *

Bartholomew County had three men in medical training, Drs. A. P. Roope, Columbus, L. H. Redman, Elizabethtown, and Dr. Thorn.

* * *

Joseph Rilus Eastman, president of the Indiana State Medical Association, had been appointed medical advisor to Governor Goodrich, in connection with the Selective Service.

* * *

Seventy-six medical officers had left Fort Harrison for a port of embarkation for France.

* * *

Two complete hospital trains had been organized at Fort Harrison, six first lieutenant medical officers being in charge of each train.

* * *

It was estimated that 3,180 medical officers, nurses and ambulance corps members from the United States Army were now attached to French and British forces.

Membership Roster

INDIANA STATE MEDICAL ASSOCIATION—1942

Following is a list of members of the Indiana State Medical Association including the names of all those who were members on November 12, 1942. Membership established after that date could not be included in this issue of THE JOURNAL.

An asterisk (*) follows the names of physicians who are in service in the armed forces.

Members who reside in one county and hold membership elsewhere are listed under the counties or states in which they reside. Names of members who have died during the year do not appear on this list.

The letter (H) following a name indicates that the physician is an honorary member of his local society and of the Indiana State Medical Association.

If any errors are found in this list, please report them to THE JOURNAL, 1021 Hume Mansur Building, Indianapolis. The cooperation of members is urgently requested.

ADAMS COUNTY

Berne

Myron Habegger
D. D. Jones
Amos Reusser
R. G. Zimmerman

Decatur

S. D. Beavers (H)
James M. Burk
Benj. Chavinson*
Robt. Daniels*
B. Duke
Palmer Eicher
F. L. Grandstaff
G. J. Kohne
C. C. Rayl
W. E. Smith
Harold F. Zwick*

Geneva

C. P. Hinchman
C. R. Price

ALLEN COUNTY

Arcola

Arthur J. Roser

Fort Wayne

J. R. Adams
Harry Aldrich
Paul P. Bailey
P. W. Bailey*
Jos. H. Baltes
A. C. Bartholomew
Jeraldine Baumgartner
Karl Bierlein*
D. R. Benninghoff
Raymond Berghoff
J. E. Bickel
H. V. Blosser
Theo. R. Borders
C. C. Bosselmann
G. T. Bowers*
Robt. H. W. Brosius
H. O. Bruggeman
Doster Buckner
E. L. Bulson
Elizabeth Burns
Jessie C. Calvin
D. F. Cameron
W. W. Carey
Ernest R. Carlo
E. L. Cartwright
M. B. Catlett
A. R. Chambers*
H. R. Chester
W. R. Clark
John E. Conley
Charles J. Cooney*
Beaumont S. Cornell
C. R. Dancer
I. W. Ditton
M. H. Draper
A. H. Duemling*
W. W. Duemling*
K. C. Eberly
B. M. Edlavitch
L. W. Elston
Ralph W. Elston
W. F. Englebert*
C. H. English (H)
A. N. Ferguson*
A. M. Fichman
H. W. Garton
W. F. Gessler
D. D. Gill*
N. H. Gladstone*
H. E. Glock
Maurice E. Glock*
Wayne R. Glock*
L. K. Gould
Herman G. Haffner*
Allen Hamilton
R. L. Hane*
K. C. Hardesty*
L. P. Harshman
Harry C. Harvey
A. M. Haswinkle*
A. P. Hattendorf*
Jay F. Havice*
J. J. Hayes*
Ruth M. Hoetzer
S. P. Hoffmann
R. E. Holsinger*
Donald D. Johnston*
J. W. Kannel
Orva T. Kidder*
John H. Kilmer*
E. H. Kruse
W. E. Kruse
C. C. Lenk*
Donald S. Ladig*
G. M. Leslie
J. C. Lill
Maurice Lohman
A. H. Macbeth (H)
Bertha Goba Macbeth
Karl F. Mast*
Edward G. McArdle*
T. E. McCabe*
Roy R. McCoy
G. A. McDowell*
D. H. McKeeman*
L. S. McKeeman
Edgar Mendenhall
Samuel R. Mercer
Herman A. Meyer
S. C. Michaelis*
Carl G. Miller*
Mahlon F. Miller
O. J. Miller*
Richard Miller*
C. F. Moats
G. E. Moats
Arthur E. Moravec
Leland J. Mortenson
Lawrence Mueller*
H. L. Murdock
Elmer W. Nahrwold*
Carroll O'Rourke*
I. H. Oyer*
C. B. Parker
K. F. Perrin*
Milton Popp*
M. F. Porter
Nelson H. Prentiss
Henry Ranke
Lyman T. Rawles
H. A. Ray
B. W. Rhamy
W. B. Rice
Walter J. Rissing
Noah A. Rockey
Juan Rodriguez
D. L. Rossiter
Maurice Rothberg*
C. J. Rothschild
Harry W. Salon
N. L. Salon
A. R. Savage*
D. W. Schafer
E. M. Schellhouse*
Foss Schenck
M. F. Schick (H)
Ed. H. Schlegel
David I. Schwartz*
H. V. Scott*
Herbert Senseny
Lawrence Shinabery
John Short
E. C. Singer
R. J. Spivey*
G. H. Somers*
L. E. Somers
A. J. Sparks
Paul L. Stier*
A. E. Stoler
John Swanson
R. W. Terrill*
J. Wiley Thimlar
Walter Thornton
Philip S. Titus
E. M. Van Buskirk
W. H. Vance*
M. Velkoff*
J. C. Wallace
Irving Weissman*
S. G. Welty
Kathryn Whitten
I. H. Willett*
A. H. Williams
Leslie Wilson*
A. C. Worley
W. C. Wright
A. R. Wyatt (H)
Jas. L. Wyatt
Noah Zehr
E. S. Zweig*

Harlan

Richard W. Emme*

Monroeville

H. E. Steinman

New Haven

C. W. Dahling
Donald C. Emenhiser
John L. Emenhiser
G. A. Smith
Berneice M. Williams

Woodburn

Edward Moser

BARTHOLOMEW COUNTY

Camp Atterbury

Marvin E. Hawes*

Columbus

L. F. Beggs
Jas. W. Benham
Marvin R. Davis
Walter S. Fisher
P. C. Graham
Robert B. Hart
J. K. Hawes
H. H. Kamman
A. M. Kirkpatrick (H)
G. W. Macy*
H. J. Norton*
W. J. Norton (H)
Lyman Overshiner
Richard K. Schmitt*
W. B. Sigmund*
Lotta A. Suverkrup
Dorothy D. Teal
Everett W. Williams*
E. U. Wood
Dewey D. Yoder
Byron K. Zaring*

Elizabethtown

O. A. DeLong

Hope

J. E. Dudding
L. D. Reed (H)

BENTON COUNTY

Ambia

W. H. Taylor

Boswell

C. W. Atkinson
H. H. Hubbard

Fowler

W. H. Altier
D. E. Mavity
Verne L. Turley

Oxford

E. E. Parker
Virgil Scheurich

Otterbein

Geo. W. Marsh*
J. E. McCabe

Earl Park

Joseph E. Horton

BOONE COUNTY

Lebanon

H. A. Beck
John D. Coons
L. M. Headley*
O. C. Higgins
C. G. Kern*
John R. Porter
E. A. Rainey
Wm. H. Spieth
Chas. O. Weddle*
Wm. H. Williams
Robt. Wiseheart*

Jamestown

Frank Riley
Alvin Schaaf

Thorntown

Clancy Bassett
Gabe C. Long*

Whitestown

R. J. Harvey

Zionsville

L. S. Bailey*
O. E. Brendel
Elmer D. Johns

BROWN COUNTY

Nashville

L. R. Crabtree
B. W. Marshall
James M. Smith

CARROLL COUNTY

BURROWS

G. W. Wagoner*

Camden

Eva Kennedy
Charles Wise

Delphi

Geo. D. Beamer*
Edgar Bridwell*
A. C. Clauser
C. C. Crampton

Flora

M. R. Adams
E. H. Brubaker

Rockfield

H. Y. Mullin

CASS COUNTY

Galveston

C. T. Dutchess

Logansport

E. W. Bailey*
C. A. Ballard
Wm. Barnett*
J. C. Bradfield
Clarence E. Bunge*
Thomas L. Cooper
John C. Davis
B. W. Egan
Clara S. Eirley
E. L. Hedde*
R. Hickman*
L. J. Hillis
Marian Hochhalter
W. A. Holloway
W. W. Holmes*
Earl B. Jewell
Thomas L. Keefe
J. A. Little*
J. B. Maxwell (H)
M. A. McDowell
Jas. R. McLaughlin*
F. T. O'Leary
Earl Palmer
C. L. Rice*
H. M. Shultz
O. H. Siewert
J. J. Stanton
Milton B. Stewart
F. W. Terflinger
Charles L. Viney*
C. L. Williams
P. H. Wilson

Royal Center

W. K. Newcomb
Russell Rollins

Twelve Mile

Donald L. Miller

Walton
E. P. Flanagan
Young America
D. E. Lybrook

CLARK COUNTY

Charlestown
David C. Bottorff
M. F. Daubenheyer
T. J. Marshall

Henryville
H. L. Shanklin

Jeffersonville
J. H. Baldwin
Richard G. Burman
Ralph Bruner
E. P. Buckley
N. C. Isler*
H. H. Reeder
S. L. Scott*
William M. Varble
M. P. Weems*
Harold R. Wilber

Sellersburg
Geo. L. Regan*

CLAY COUNTY

Brazil
Fred C. Dilley
J. L. Lambert
J. F. Maurer
H. L. Muncie
John M. Palm*
H. M. Pell
John C. Shattuck
C. C. Sourwine
T. M. Weaver
R. K. Webster
O. L. Wood*

Carbon
J. W. VanSandt

Clay City
Walter Bond
L. C. Rentschler

Coalmont
H. H. Ward

Poland
G. S. Silliman

CLINTON COUNTY

Colfax
M. L. Harshman*
Wm. Wisehart

Frankfort
F. A. Beardsley
C. A. Burroughs
A. G. Chittick
C. B. Compton
T. A. Dykhuizen*
Milton W. Erdel*
Alexander Hamilton
G. K. Hammersly*
R. A. Hedgcock*
W. W. Jones*
C. A. Robison
Hollace R. Royster
Benson Ruddell
S. B. Sims (H)
J. A. Van Kirk
B. A. Work*

Kirklin
Wm. C. Mount

Michigantown
James B. Warriner*

Mulberry
Nelson B. Combs*
J. A. Kent

Rossville
John S. Ketcham

Sedalia
Ivan E. Carlyle

CRAWFORD COUNTY

English
J. Robert Fouts*

Leavenworth
Henry H. Deen

Marengo
O. R. Lynch

Milltown
J. J. Johnson

DAVIESS-MARTIN COUNTIES

Elnora
Mac Guyer Porter (H)
J. R. Rohrer*

Loogootee
Emory B. Lett*
J. W. Strange

Montgomery
J. O. McCracken

Odon
I. E. Bowman
Henry G. Coleman*
Jerome DeMotte

Plainville
D. H Swan

Shoals
J. S. Gilkison
Karl G. Helm

Washington
N. Maude Arthur
A. G. Blazey*
B. O. Burress
V. J. Chattin*
C. P. Fox
Clair Ingalls*
H. B. Lindsay*
Jack McKittrick*
Wm. O. McKittrick
S. L. McPherson (H)
A. A. Rang
E. Brayton Smoot
H. C. Wadsworth

DEARBORN-OHIO COUNTIES

Aurora
Wm. F. Duncan (H)
J. K. Jackson*
J. M. Jackson
C. W. Olcott
O. H. Stewart
James F. Treon
E. R. Wallace

Dillsboro
M. J. McNeely

Guilford
John C. Elliott

Lawrenceburg
E. P. Drohan*
A. T. Fagaly
Wm. J. Fagaly*
E. L. Libbert*
J. M. Pfeifer*
G. F. Smith
F. A. Streck

Rising Sun
R. M. Ferguson
G. S. Fessler
C. N. Manley*

DECATUR COUNTY

Adams
M. A. Tremain

Clarksburg
John E. Fisher*

Greensburg
P. C. Bentle
Russell Blenker*
W. C. Callaghan*
H. S. McKee
Boyd L. Mahuron
C. C. Morrison
J. T. Morrison
C. W. Mullikin
Charles Overpeck
E. T. Riley
I. M. Sanders

Letts
D. D. Dickson*

Millhousen
J. W. Herr

St. Paul
H. E. Harkcom

Westport
E. A. Porter
Charles Wood

DEKALB COUNTY

Auburn
H. M. Covell*
L. N. Geisinger
D. M. Hines
A. V. Hines
Harold Nugen*
J. A. Sanders
Bonnell M. Souder
Chas. S. Stewart (H)
Willard W. Swarts

Butler
Clayton B. Hathaway
Chas. Weirich

Garrett
Carlton J. Guild*
Martin E. Klinger
R. A. Nason*
D. Douglas Odell
D. M. Reynolds
R. P. Reynolds
J. W. Thomson
Willard A. Van Nest
T. P. Walsh

Waterloo
E. A. Ish
J. P. Showalter*

DELAWARE-BLACKFORD COUNTIES

Albany
K. E. Puterbaugh

Daleville
O. Arnold Tucker

Gaston
Fred Langsdon

Hartford City
Wendell W. Ayres
Geo. H. Dando
James Dodds*
J. W. Morris
Guy A. Owsley*
Robert Owsley*
Bryce P. Weldy*
L. E. Werry

Montpelier
Chas. J. Aucreman*
T. J. McKean

Muncie
W. B. Adams
L. M. Baker*
Clay A. Ball
Henry E. Bibler
Karl T. Brown
Rollin H Bunch
R. M. Butterfield*
E. H. Clauser
J. H. Clevenger*
R. E. Cole
Donald A. Covalt*
Nila Covalt
H. A. Cowing (H)
Elmer T. Cure
E. C. Davis
O. M. Deardorff
Wm. Deutsch, Jr.*
F. W. Dunn
L. C. Garling*
O. A. Hall*
T. R. Hayes
R. A. Henderson*
F. E. Hill (H)
Howard E. Hill*
Robert Hill*
Anson Hurley
J. R. Hurley*
A. T. Kemper
F. E. Kirshman*
Jules La Duron
J. L. Larmore*
Sarah M. Larmore
C. A. Leatherman
L. R. Mason
R. W. McMichael*
W. J. Molloy
L. G. Montgomery
Paul D. Moore
W. C. Moore
Thos. R. Owens
Wm. J. Quick*
A. C. Rettig
M. G. Schulhof*
J. C. Silvers
J. M. Silvers
Jas. S. Smith
O. E. Spurgeon
B. W. Stocking
C. J. Stover
E. F. Tindal
Robert Turner
Kemper N. Venis*
Elaine Vlaskamp
L. O. Walters
John H. Williams
Amelia T. Wood
Gerald S. Young*

Selma
C. A. Jump

Yorktown
Frank T. Kilgore
M. J. Moss*

DUBOIS COUNTY

Ferdinand
H. G. Backer
A. F. Gugsell

Huntingburg
Waverly D. Bretz
A. H. Held*
H. C. Knapp (H)
E. G. Lukemeyer (H)
L. C. Lukemeyer
S. L. McKinney
R. J. Rossow
E. F. Steinkamp
Harvey Stork
F. P. Williams*

Ireland
L. B. Johnson (H)

Jasper
Paul J. Blessinger
I. P. Carper
Joseph Casper
M. C. Heck*
G. A. Held*
St. John Lukemeyer
Leo A. Salb

ELKHART COUNTY

Bristol
Richard G. Horswell
E. G. Neidballa*

Elkhart
T. D. Arlook*
R. L. Bender
G. E. Bowdoin
R. A. Bowman
Walter A. Compton*
L. M. Dedario
Fred N. Dewey (H)
L. A. Elliott
C. F. Fleming
Justus M. Fleming*
Geo. W. Grossnickle
A. W. Hull
M. F. Hunn
Arthur W. Kistner*
John W. Kistner
Elmer G. Koehler*
W. C. Landis
Milo O. Lundt*
I. J. Markel
H. N. McKee
S. T. Miller
Irving Mishkin*
Allen A. Norris
W. A. Paff*
Vernon K. Pancost*
G. B. Patrick
H. M. Pickard*
Michael A. Rafferty*
H. C. Schlosser
M. Maywood Sears
Walter Allen Stauffer
R. B. Stout*
L. Forest Swank
Lucretia R. Swank
Glen Swihart
L. F. Swihart
D. D. Todd
K. W. Vetter*
S. C. Wagner
O. E. Wilson*
Jas. A. Work

Goshen
H. Clair Amstutz
Mary Bartholomew
Cecil K. Bender
Robert S. Bolin*
H. P. Bowser
Ida L. Eby
F. M. Freeman
W. R. Kelly
Herbert K. Lemon
Floyd S. Martin*
Malcolm E. Miller*
W. B. Page
L. H. Simmons
H. E. Vanderbogart
Albert C. Yoder
Ralph H. Young

Middlebury
M. A. Farver (H)
Ernest Bernard Norris*
Melvin Teters

Millersburg
L. H. Chandler

Nappanee
Henry Defrees (H)
Raymond A. Fleetwood*
Douglas Price*
Melvin Delbert Price
W. A. Price (H)
J. S. Slabaugh
Lotus M. Slabaugh

New Paris
Howard A. Bosler
E. D. Stuckman

Wakarusa
Chas. L. Amick
F. I. Eicher

FAYETTE-FRANKLIN COUNTIES

Brookville
W. A. Foreman
E. M. Glaser
R. E. Glaser
H. R. Hoeger
H. N. Smith

Connersville
L. N. Ashworth
Irvin E. Booher*
R. H. Elliott
Stanley Gordin
Stanton E. Gordin
Albert F. Gregg*
W. A. Kemp*
George N. Love*
H. C. Metcalf
R. D. Morrow
Francis Mountain
H. W. Smelser

Glenwood
W. R. Phillips

Oldenburg
Geo. Obery

FLOYD COUNTY

Galena
E. L. Sigmon (H)

Georgetown
H. K. Engleman

New Albany
A. M. Baker
James W. Baxter
J. W. Baxter, Jr.*
S. M. Baxter*
C. E. Briscoe
K. H. Brown*
Phillip Cohn
D. F. Davis
Parvin Davis*
Geo. H. Day
W. F. Edwards*

W. H. Garner*
John P. Gentile*
John F. Habermel
W. A. Hall
A. P. Hauss
Thos. H. Hewlett*
A. G. Hofferkamp
Chas. P. Leuthart
J. Y. McCullough
J. V. Pace
P. R. Pierson
Gretchen I. Polhemus
A. N. Robertson
S. T. Rogers
P. H. Schoen
H. B. Shacklett
A. V. Simon*
H. P. Sloan
Earl M. Spaulding*
M. B. Strange
F. T. Tyler
Harry Voyles
Wm. W. Weaver*
W. C. Winstandley
M. F. Wolfe*

FOUNTAIN-WARREN COUNTIES

Attica

James C. Freed
Albert C. Holley
A. R. Kerr
Lee J. Maris*
Abraham M. Owen*

Covington

J. W. Aldridge
Earl E. Johnson
Simeon Lambright (H)
L. R. Stephens*

Hillsboro

E. G. Bounell

Kingman

A. L. Ratcliff
B. J. Smith*

Perrysville

W. A. Johnson

Pine Village

Geo. W. Dewey

Veedersburg

C. B. McCord
Jno. B. Owens

Wallace

Hubert M. Rusk
W. W. Heald

Williamsport

C. V. Davisson
John S. Hash
G. S. Porter

FULTON COUNTY

Akron

C. L. Herrick*
Virgil Miller

Athens

A. E. Stinson

Fulton

F. C. Dielman

Kewanna

L. E. Kelsey
Kenneth Kraning

Rochester

E. V. Herendeen*
M. O. King
M. E. Leckrone
H. W. Markley
C. L. Richardson
Dean K. Stinson

GIBSON COUNTY

Fort Branch

B. C. Gwaltney
H. P. Klein
W. F. Morris

Haubstadt

H. G. Pettijean*
Austin F. Marchand
Edwin V. Marchand

Hazelton

H. M. Arthur

Oakland City

C. M. Clark
E. R. Ropp
A. B. Scales*
R. W. Wood*
W. B. Wood

Owensville

G. B. Beresford (H)
I. R. Montgomery
Karl S. Strickland

Patoka

M. L. Arthur

Princeton

H. H. Alexander
O. T. Brazelton
W. E. Childs*
L. D. Eaton
John K. Folck*
Orville M. Graves
M. P. Hollingsworth (H)
Virgil McCarty*
R. S. McElroy*
Chas. A. Miller
A. H. Rhodes
J. D. Winebronner*

GRANT COUNTY

Fairmount

Ralph H. Beams*
Z. T. Hawkins (H)
Glenn Henley
L. D. Holliday
Joseph Seale

Gas City

Leon J. Garrison
Fred Tavenner

Holton

Edward B. Gall*

Jonesboro

Russell Baskett*

Marion

Charles F. Abell*
W. T. Bailey
Asa W. Bloom*
Grace B. Boyer
Robert F. Braunlin
W. H. Braunlin
Robt. Brown*
A. D. Burge
B. C. Dale
E. O. Daniels
G. R. Daniels
M. S. Davis
Leo Diamond
G. G. Eckhart
L. H. Eshleman
Henry Fisher*
Pierre J. Fisher
Max Ganz*
H. R. Goldthwaite
A. D. Huff
R. W. Lavengood
Harold E. List*
John F. Loomis (H)
Eleanor McIlwain
Robert McIlwain
J. D. McKay
H. A. Miller
Nettie B. Powell
Sidney Price*
L. L. Renbarger*
G. G. Richardson
Claud E. Skomp
J. H. Stewart*
Samuel Weinberg

Swayzee

P. C. King*
Wm. S. Resoner

Upland

E. C. Taylor

Van Buren

M. L. Bridge
John E. Derbyshire
Holtz Wm. Nyce

GREENE COUNTY

Bloomfield

King L. Hull
M. S. Mount*
H. B. Turner
F. A. VanSandt

Jasonville

Carl M. Porter*
H. G. Rotman*

Linton

Edwin Bailey*
P. C. Berns
W. F. Craft
Geo. C. Porter
B. B. Raney*
M. E. Tomak
John W. Woner*

Lyons

Paul A. Jones*
J. S. Simons (H)

Newberry

Luther Hamilton

Worthington

Asa H. Fender*
George E Moses

HAMILTON COUNTY

Arcadia

Frank Rodenbeck

Carmel

Ross A. Cooper
C. M. Donahue
Wayne B. Stone*

Cicero

E. D. Havens
Russell E. Havens*
C. H. Tomlinson

Noblesville

J. C. Ambrose*
R. F. Harris
Sam W. Hooke
Ray W. Shanks
C. B. Southard

Sheridan

J. W. Griffith*
A. C. Newby
J. L. Reck
E. M. Young

Westfield

Andrew F. Connoy

HANCOCK COUNTY

Charlottesville

R. O. Scott

Fortville

Jesse E. Ferrell
Samuel W. Hervey (H)
Hugh K. Navin
Walter F. Ramage*

Greenfield

J. L. Allen
Ralph N. Arnold
C. H. Bruner
Chas. Milo Gibbs
Oscar Heller
R. E. Kinneman*
L. B. Rariden
Jas. R. Woods, Jr.*

New Palestine

W. H. Larrabee
E. E. Mace
Thomas A. Pierson

Wilkinson

E. R. Gibbs
Charles Titus

HARRISON COUNTY

Corydon

F. M. Applegate*
W. E. Amy
Carl E. Dillman

Crandall

G. D. Baker

Elizabeth

Fred Bierly

Lanesville

E. W. Murphy

Mauckport

Alfred Mathys

Palmyra

Frank May

Ramsey

L. F. Glenn

HENDRICKS COUNTY

Brownsburg

Lloyd E. Foltz
A. N. Scudder

Clayton

Rilus E. Jones

Danville

Mount E. Frantz
Joseph W. Gibbs
J. H. Grimes
Byron Kilgore, Jr.*
W. T. Lawson (H)
Isabel Morgan

North Salem

L. H. Ellis*
E. Ray Royer
O. H. Wiseheart

Pittsboro

O. T. Scamahorn

Plainfield

M. M. Aiken
Jos. S. Smith*
J. C. Stafford
W. C. Stafford*
C. B. Thomas

HENRY COUNTY

Blountsville

Paul Marsh*

Knightstown

J. Leo Bartle*
E. B. Call
Ralph W. Dreyer
O. H. Rees (H)
John Ivan Waller

Lewisville

Marion R. Scheetz

Middletown

R. D. Arford
Farrol Dragoo
Joseph H. Stamper*

Mooreland

W. A. DeFoe

Mt. Summit

L. C. Marshall

Newcastle

R. L. Amos
C. C. Bitler
James G. Bledsoe*
A. B. Burnett*
C. E. Canaday
B. L. Harrison*
W. C. Heilman
G. E. Iterman*
W. U. Kennedy
Homer Life
J. F. Mills*
J. S. McElroy*
J. H. McNeill
R. A. Smith*
Robert Spindler*
Walter M. Stout*
C. E. Thorne*
J. A. Tully
Walter C. Van Nuys
E. K. Westhafer
D. S. Wiggins
George Wiggins
W. W. Wright

Shirley

Ralph Wilson

Spiceland

W. S. Robertson*

HOWARD COUNTY

Greentown

L. D. Denton*
H. B. Shoup

Kokomo

C. J. Adams
T. J. Bruegge*
Elton R. Clarke
T. M. Conley
R. A. Craig
F. S. Cuthbert
G. N. Druley
P. W. Ferry
W. W. Gipe
R. P. Good*
W. H. Harrison (H)
W. H. Hutto*
John M. Kimmich*
L. R. Knepple
E. F. Kratzer
B. D. Lung
Will J. Martin
R. E. McIndoo
J. A. Meiner
D. A. Morrison*
W. R. Morrison
F. N. Murray
Durward W. Paris*
L. M. Reagan
H. M. Rhorer
R. J. Rhorer*
R. P. Schuler
R. F. Scott
E. M. Shenk
J. S. Spangler*
Fred M. Wilson*

Russiaville

R. M. Evans
A. H. Miller

HUNTINGTON COUNTY

Andrews

J. R. Ware*

Huntington

Harold S. Brubaker
Stanley M. Casey
A. C. Chenoweth
M. G. Erehart
J. B. Eviston
R. F. Frost (H)
Paul M. Gray
F. W. Grayston
Wallace S. Grayston
James M. Hicks*
R. G. Johnston
Robert Meiser
F. B. Mitman
Grover Nie
G. G. Wimmer

Markle

A. H. Northrup
H. C. Woods*

Warren

Claude S. Black
L. W. Smith

JACKSON COUNTY

Brownstown

B. M. Merrell*
G. R. Gillespie

Ewing

D. J. Cummings

Cortland

J. M. Jenkins (H)

Crothersville

Wm. K. Adair
Frank B. Bard

Freetown

T. E. Conner

Medora

Jack E. Shields

Seymour

W. D. Day*
L. W. Elsner
C. E. Gillespie
Harold P. Graessle
G. H. Kamman
Guy Martin
Harold E. Miller
Louis Osterman
D. L. Perrin
W. H. Shortridge
E. D. Wright

JASPER-NEWTON COUNTIES

Brook
W. G. Pippenger

Goodland
J. F. Openshaw
Ralph H. Ruhmkorff

Kentland
O. E. Glick
W. C. Mathews
Geo. H. Van Kirk*
Roscoe Yegerlehner*

Morocco
G. D. Larrison

Remington
Richard Schantz
F. G. Sink*

Rensselaer
H. E. English
M. D. Gwin
C. E. Johnson
E. Schumaker

JAY COUNTY

Dunkirk
E. C. Garber
E. H. Hall*
Don P. Murray
Jas. T. Oswalt*

Pennville
H. J. Hiestand

Portland
A. C. Badders
George Cring
Stanley M. Hammond*
F. E. Keeling*
O. L. Meyer*
Mark M. Moran
W. D. Schwartz
D. E. Spahr
B. M. Taylor

Redkey
John Lansford*

Salamonia
J. J. Kidder

JEFFERSON COUNTY

Hanover
Carl Henning

Madison
L. F. Beetem*
A. G. W. Childs
E. C. Cook
Fred C. Denny
Anna Goss
N. A. Kremer
O. R. Lynch
George A. May*
Wm. A. Shuck*
E. C. Totten
Oscar A. Turner
S. A. Whitsitt

North Madison
Chas. W. Denny
C. C. Copeland (H)
G. A. Estel
James W. Milligan (H)
Francis Prenatt

JENNINGS COUNTY

Butlerville
G. W. Boner
R. B. Johnson*
Martha Moore
Joseph S. Skobba*

Deputy
D. W. Robertson (H)

North Vernon
R. E. Estlick*
John H. Green
W. L. Grossman
D. W. Matthews
D. L. McAuliffe (H)
W. H. Stemm (H)
B. W. Thayer*

Scipio
W. L. Wilson (H)

JOHNSON COUNTY

Edinburg
J. V. Baker
Lon C. Bice
J. F. Michaels
Wm. E. Sutton*

Franklin
Florence Blackford
Harry Murphy
Walter L. Portteus
O. A. Province
A. W. Records
R. C. Wilson

Greenwood
J. A. Craig
Kenneth L. Sheek*
George Tiley
C. E. Woodcock

Trafalgar
F. P. Albertson*

Whiteland
J. H. Machledt

KNOX COUNTY

Bicknell
M. S. Fox*
R. H. Fox
W. W. Meade*
John C. Warren*
Guy Wilson

Bruceville
J. W. House

Edwardsport
J. A. Scudder

Freelandville
N. E. Boyd*

Oaktown
Wm. A. Hodges
G. H. Springstun

Sandborn
E. N. Johnson
J. W. Pahmier

Vincennes
W. A. Bailey
E. W. Beckes
J. L. Blaize
C. L. Boyd
R. B. Cochran
M. L. Curtner
L. J. Downey
E. T. Edwards
V. A. Funk
L. L. Gilmore
I. M. Goldman
Doris Hoffman
M. H. C. Johnson
A. B. Knapp (H)
H. D. McCormick
R. C. Meyer
R. G. Moore
W. K. Nance*
E. L. Pollock
S. A. Prather
J. P. Ramsay (H)
D. H. Richards
William Schulze
K. L. Shaffer*
E. F. Small
Frederic Spencer

Wheatland
V. R. Lazo

KOSCIUSKO COUNTY

Claypool
H. F. Steele

Leesburg
C. E. Thomas
Everett W. Thomas*

Mentone
Dan L. Urschel

Milford
John L. Hillery*
Virgil G. Hursey

North Webster
L. A. Laird

Pierceton
G. N. Herring
T. S. Schuldt

Warsaw
J. R. Baum
C. C. Dubois
Geo. L. Kress*
A. C. McDonald (H)
S. C. Murphy
O. H. Richer
Geo. H. Schlemmer*

LAGRANGE COUNTY

Howe
A. A. Wade

LaGrange
H. G. Erwin
H. F. Flannigan
C. H. Schulz

Topeka
W. O. Hildebrand

Wolcottville
B. H. Pulskamp

LAKE COUNTY

Crown Point
Philip H. Becker
J. P. Birdzell*
D. E. Gray
George W. Holmes*
J. W. Iddings
C. R. Pettibone
Anna G. Seyler
E. B. Steele
W. R. Troutwine

East Chicago
G. F. Bicknell
Charles S. Boyd
F. F. Boys
A. A. Brauer
Arthur D. Brody*
B. D. Braun
R. H. Callahan*
E. A. Campagna
E. H. Carleton
B. B. Cohen*
A. V. Cole
E. R. Cotter*
Thos. F. Cotter
Chas. J. Doneghy
H. C. Ernst
J. C. Fleischer
Alexander Govorchin
Wm. G. Grosso*
R. C. Hamilton
R. S. Hardwick
D. R. Johns
Lazar Jošif
Adolph G. Kammer
J. E. Komoroske
G. G. Lapid
Eli Levin
H. L. Maier
Ora L. Marks
D. F. McGuire
F. H. Mervis
J. S. Niblick
Jas. J. O'Connor
L. J. Ostrowski
F. F. Permuda*
S. J. Petronella
George Procopie
A. G. Schlieker
Louis Daniel Smith*
Paul B. Smith
J. S. Stanley*
S. A. Szabo
J. A. Teegarden
J. A. Teegarden, Jr.
L. L. Toplinsky*
Nathaniel VanDorf*
Hugh A. Vore
S. G. Zallen
J. M. Zivich

Gary
W. P. Alexander (H)
C. O. Almquist
Chas. P. Anderson*
George D. Anthoulis
Bellfield Atcheson*
H. M. Baitinger
W. M. Behn
C. H. Bendler*
Robert S. Best
L. F. Bills
R. N. Bills
Carl Boardman
Samuel Brady
C. C. Brink
David B. Brown*
M. J. Bullard
J. B. Burcham
J. A. Carbone*
R. F. Carmody
J. J. Chevigny
G. E. Comstock*
S. H. Crossland
J. B. Cushman*
L. J. Danieleski
C. A. DeLong
A. J. Dian*
E. J. Dierolf*
J. C. Donchess
J. R. Doty
J. S. Duncan
R. A. Elliott*
H. M. English
E. C. Gaebe
G. W. Gannon
E. E. Geisel
Antonio Giorgi (H)
Adolph Goldstone*
Joseph Goldstone
A. F. Gregoline
B. F. Gumbiner
F. A. Gutierrez
B. W. Harris
R. M. Hedrick
Maxwell Herschleder
Harry L. Kahan*
A. M. Kan
N. E. Kereric*
F. J. Kendrick*
H. F. Kobrak*
M. W. Kobrin*
Geo. J. Kolettis
Julia G. Kuzmitz
F. P. Lafata*
Arnold L. Lieberman
T. B. Lorenty*
Georgianna Lutz
M. C. Marcus
J. W. Mather
F. J. McMichael
Frank W. Merritt
O. B. Nesbit
Frank Neuwelt
H. C. Parker
J. O. Puryear
J. S. Reynolds
Samuel Richter
P. J. Rosenbloom*
M. R. Rubin*
H. J. Ryan
L. K. Ryan
Jacob Sagel
J. J. Sala*
E. L. Schaible
T. J. Senese
Michael Shellhouse
J. M. Siekierski*
E. D. Skeen
Herschel S. Smith*
Harry R. Stimson
C. M. Stoycoff
D. B. Templin
G. L. Verplank
James P. Vye
A. A. Watts
R. O. Wharton
J. M. White
W. J. White
O. C. Wicks
Robt. N. Wimmer
C. W. Yarrington
P. S. Yocum
G. M. Young

Griffith
Robert T. Hazinski
F. A. Malmstone
Daniel J. Vracin*

Hammond
D. A. Bethea
W. M. Bigger
J. T. Bolin
Fred Braginton
S. L. Brown
J. F. Carlo*
Benj. W. Chidlaw
J. F. Clancy*
G. M. Cook
C. H. Crews
Alice H. Davis
H. W. Detrick
E. L. Eggers
H. W. Eggers
D. A. Eisenberg
Ray Elledge
N. K. Forster
F. H. Fox
M. B. Gevirtz
H. C. Groman
E. C. Hack
A. H. Hansen
R. R. Herbst*
H. S. Hicks
W. A. Hornaday
W. H. Howard
Robert Husted*
A. I. Jackman*
E. S. Jones
R. W. Kretsch
Hedwig S. Kuhn
Hugh A. Kuhn
C. A. McVey
Chas. B. Matthews
R. J. Modjeski*
J. B. Morris*
Lindsay Morrison
Richard B. Nelson*
Wm. E. Nichols
Louis Nodinger
R. O. Ostrowski
Solomon V. Panares
E. A. Pekarek*
C. W. Rauschenbach
A. C. Remich
D. T. Rendel*
A. W. Rhind
Perry Q. Row
F. G. Rudolph
J. Schlesinger
E. M. Shanklin
James Shanklin*
Philip David Shanedling
H. I. Shulruff*
Stanley Skrentny
David H. Stern*
S. L. Stern
Thos. C. Tyrrell

Hobart
L. E. Dupes
L. M. Frederick
R. W. Kraft
R. M. May
A. G. Miller
Wm. R. Storer

Lowell
Neal Davis
John A. Mirro

Whiting
O. F. Benz*
D. W. Bopp
Harry Brandman
H. D. Cogswell
A. J. Dainko*
John L. Ferry
Clementine Frankowski
Clifford M. Jones
J. E. Kopcha*
L. T. Kudele*
Jeremiah A. McCarthy
D. H. Rudser*
Harry Silvian
T. J. Smith
Peter Stecy*
G. A. Thegze
E. M. Walsh*
L. J. Wisch

LAPORTE COUNTY

Hanna
H. A. Garner

Lacrosse
D. D. Oak

LaPorte
Elmer A. Barron*
C. E. Burleson
E. F. W. Crawford
C. B. Danruther
R. A. Farqher
C. N. Fisher
R. B. Jones
J. N. Kelly
Robert M. Kelsey
R. W. Kepler
J. J. Kistler*
Francis J. Kubik
G. O. Larson
E. E. Linn

W. B. Martin
S. P. Morgan
C. E. Muhleman*
A. C. Przednowek
W. W. Ross
A. R. Simon
R. F. Wilcox
L. J. Witkowski

Michigan City

T. D. Armstrong
D. G. Bernoske
E. G. Blinks
H. L. Brooks
F. L. Burris
Norman R. Carlson*
S. J. Donovan*
F. M. Fargher
Donald J. Feerer
Palmer R. Gallup
M. D. Gardner
R. A. Gardner*
R. A. Gilmore
John T. Kemp*
D. J. Kennington
R. L. Kerrigan
Aimee R. Killough
George M. Krieger
F. V. Martin (H)
John R. Phillips*
Leonard F. Piazza
J. D. Price
Nelle C. Reed
Lawrence M. Robrock
Alva Spinning
L. E. Stephenson
Frank R. Warren
P. H. Weeks
L. A. Wilson

Rolling Prairie

C. W. Brown

Union Mills

Louis Moosey

Westville

Warren Baker
R. J. Sanderson*

LAWRENCE COUNTY

Bedford

L. H. Allen
R. P. Austin
Norman R. Byers
J. C. Dusard*
Charles B. Emery*
Chas. H. Emery (H)
Frank D. Martin
A. E. Newland
John R. Pearson
H. C. Ragsdale
M. O. Robertson
Morrell E. Simpson
Robt. B. Smallwood*
Benj. A. Speheger*
Chas. E. Stone
R. E. Wynne

Mitchell

Morris Cohen*
A. R. Episcopo*
B. P. Gill
J. R. Hamilton
W. S. Workman (H)

Oolitic

Claude Dollens

Williams

J. T. McFarlin (H)

MADISON COUNTY

Alexandria

J. L. Carpenter
J. J. Gibson (H)
F. G. Keller
F. M. Kendall*
Anthony E. Otto (H)
George H. Overpeck

Anderson

W. J. Aagesen*
C. L. Armington
John C. Armington
Robert Armington*
M. A. Austin
Kenneth D. Ayres
C. H. Brauchla
Earl E. Brock
Etta Charles (H)
A. W. Collins
E. M. Conrad
Rex Dixon
John C. Drake*
A. W. Elsten
A. D. Erehart
J. B. Fattic (H)
H. W. Gante
F. C. Guthrie
Lee Hunt
H. E. Jones
Thomas M. Jones
B. A. King
Jos. W. King*
O. A. Kopp
James L. Lamey*
P. T. Lamey*
S. W. Litzenberger*
J. A. Long
Paul L. Long*
V. McFall*
V. G. McDonald
O. E. McWilliams
Doris Meister
George B. Metcalf
W. M. Miley
Paul Leon Nelson*
L. L. Nesbit*
D. S. Quickel (H)
John I. Rinne, Jr.
Lloyd Rosenbaum*
Guy E. Ross
Clarence V. Rozelle*
W. L. Sharp*
S. J. Stottlemyer
J. Ross Tracy
Milo C. Wells
G. B. Wilder
F. M. Williams
R. H. Williams*
C. L. Willson
F. B. Wishard
Cecil S. Wright
R. O. Zierer

Elwood

Perry Cotton
J. E. Cullipher
H. W. Fitzpatrick
Wm. H. Hoppenwrath
W. Merle Hoppenwrath
W. A. Laudeman
M. L. Ploughe (H)
R. R. Ploughe

Frankton

Raymond Russell*

Lapel

John I. Rinne

Markleville

D. N. Conner

Pendleton

Wm. D. Hart
Albert T. Jones
C. P. McLaughlin*
Howard A. Stellner*
F. M. Williams, Jr.*

Summitville

Seth Irwin
L. F. Mobley

MARION COUNTY

Beech Grove

Raymond Butler
Young D. Kim
James C. Rhea

Bridgeport

F. L. Hade

Clermont

D. L. Andrews*

Cumberland

Hans A. Schulze

FT. BENJ. HARRISON

R. D. Fry*
Don G. Hildrup*
George T. Paulissen*
Alexander T. Ross*
J. W. Bowers*
Guy A. Owsley

Indianapolis

D. S. Adams
H. C. Adkins*
Henry R. Alburger
Harry D. Aldrich*
Howard Aldrich
H. R. Allen
E. O. Alvis
E. M. Amos
R. J. Anderson
W. S. Ankenbrock
Richard H. Appel*
Russell L. Arbuckle*
Wm. E. Arbuckle
Aaron L. Arnold*
S. S. Aronson*
J. A. M. Aspy
Amil C. Bach
Max A. Bahr
O. H. Bakemeier
James F. Balch
R. F. Banister
H. M. Banks
M. J. Barry
D. A. Bartley
G. W. Batman
E. T. Baumgart*
Robert R. Beach
Paul Beard*
T. J. Beasley
Norman M. Beatty
H. F. Beckman
R. C. Beeler
L. D. Belden
Henry I. Berger
J. K. Berman
Joseph Bernstein*
M. E. Beverland
L. D. Bibler*
Charles R. Bird
R. E. Blackford
A. Ebner Blatt
E. F. Bloemker
John J. Boaz
E. F. Boggs
C. B. Bohner
R. L. Boling*
George S. Bond
Norman R. Booher*
Olga B. Booher*
Daniel L. Bower
Don D. Bowers
Geo. W. Bowman
David A. Boyd, Jr.
Floyd A. Boyer
John R. Brayton
Lee Brayton
George M. Brother
Archie E. Brown*
Edward A. Brown
Frances T. Brown
Wendell E. Brown*
J. S. Browning
W. M. Browning*
E. H. Brubaker
Walter L. Bruetsch
Robert F. Buehl
Louis Burckhardt
F. H. Burton*
Rose J. Buttz
E. E. Cahal
Hugo M. Cahn
H. F. Call
J. W. Canaday
Irwin Caplin*
S. S. Caplin*
Francis E. Carrell*
Wayne Carson*
James C. Carter
L. D. Carter
Oren E. Carter
R. S. Chappell
K. K. Chen
Fredk. D. Cheney
C. J. Clark
C. P. Clark
L. J. Clark
W. F. Clevenger
Walter D. Close*
R. R. Coble
B. W. Cohen*
Hubert Lowell Collins
J. N. Collins
Eliz. S. Conger
Jos. L. Conley
Chester C. Conway
Glenn Conway
C. J. Cook
S. J. Copeland
A. C. Corcoran
M. Cornacchione*
Thomas A. Cortese*
Thomas E. Courtney
C. E. Cox
H. Bailey Cox
Harold M. Cox
K. L. Craft
Helen L. Crawford
F. W. Cregor
H. E. Crockett
Clyde G. Culbertson
Paul K. Cullen*
J. M. Cunningham
John E. Dalton
J. C. Daniel
N. Cort Davidson
George D. Davis
John A. Davis
C. W. Day
John Day
Eleanor H. Deal
Michael F. Dean
R. M. Dearmin*
Murray DeArmond*
Blan F. Deer
J. W. Deever
C. Bowen DeMotte
J. W. Denny
Dwight DeWeese*
W. J. Dieter
Albert M. Donato
W. L. Dorman
James W. Duckworth*
Thomas J. Dugan
William M. Dugan
Harold Dunlap
L. M. Dunning
R. W. Dwyer
E. W. Dyar, Jr.*
Evanson B. Earp
J. Rilus Eastman
E. R. Eaton
J. Wayne Ebert
J. H. Eberwein
A. P. Echternacht*
H. L. Egbert*
Roy Egbert
P. D. Eidson
C. L. Eisaman*
Bert Ellis
John T. Emhardt
John W. Emhardt
J. E. Engeler
L. A. Ensminger
Ralph V. Everly*
Jos. T. Farrell*
C. Basil Fausset*
C. E. Ferguson
John W. Ferree*
Frank B. Fisk
Bryce E. Fitzgerald*
Joseph O. Flora*
Harry L. Foreman
Frank Forry
D. W. Fosler
Paul J. Fouts
Willis A. Fromhold
R. L. Fullerton*
A. G. Funkhouser
Elmer Funkhouser
Paul C. Furgason
S. A. Furniss
Harry E. Gabe
William E. Gabe
Euclid T. Gaddy
J. Neill Garber
George J. Garceau
Frederic B. Gardner
William Garner
William S. Garner*
John D. Garrett
J. A. Garrettson
W. P. Garshwiler
F. M. Gastineau
W. D. Gatch
Julius H. P. Gauss
Roy A. Geider*
Herman Gick
F. E. Gifford
C. F. Gillespie
J. E. Gillespie*
R. L. Glass
J. L. Glendening
C. S. Goar
H. W. Goss
J. J. Gramling
John W. Graves*
O. W. Greer*
John Greist*
R. E. Griffith
Wait R. Griswold*
G. W. Gustafson
C. B. Gutelius
Carl Habich
Claude E. Hadden
Murray N. Hadley
Edmund B. Haggard*
E. V. Hahn
Franklin T. Hallam*
H. G. Hamer
John G. Hancock*
T. A. Hanna
O. P. Hannebaum*
R. M. Hansell
A. K. Harcourt
Myron S. Harding
E. H. Hare
A. H. Harold
N. E. Harold
Carl B. Harris
Paul N. Harris
C. J. Haslinger
B. F. Hatfield
N. W. Hatfield*
S. J. Hatfield
James H. Hawk*
Joseph L. Haymond
Everett Hays*
H. H. Heinrichs
John D. Hendricks
John W. Hendricks
Russell S. Henry*
C. K. Hepburn*
A. M. Hetherington
Walter Hickman
James M. Himler
Ulis B. Hine
Don C. Hines
Russell Hippensteel
Fletcher Hodges
J. Wm. Hofmann
A. A. Hollingsworth
J. E. Holman
R. D. Howell*
Carl P. Huber
Foster J. Hudson
J. E. Hughes
W. F. Hughes
L. B. Hurt
Paul T. Hurt
Roy T. Hynes*
Paul G. Iske
F. E. Jackson
G. B. Jackson
J. L. Jackson
J. W. Jackson
H. A. Jacobs
L. G. Jacobs
A. S. Jaeger
O. S. Jaquith
K. I. Jeffries
W. O. Jenkins
Robert E. Jewett
C. H. Jinks
Jas. E. Jobes*
N. E. Jobes
Thos. W. Johnson
Wm. F. Johnson
David E. Jones
F. P. Jones*
M. V. Kahler*
Leo Kammen*
Sidney A. Kauffman*
R. L. Keenan
T. V. Keene
C. H. Keever
V. D. Keiser
Don E. Kelly*
J. F. Kelly
Walter F. Kelly
Wendell C. Kelly*
G. F. Kempf
W. M. Kendrick, Jr.*
H. R. Kerr
Jane M. Ketcham
E. N. Kime
Wm. E. King
J. K. Kingsbury
E. F. Kiser
Harry E. Kitterman*
Benj. Victor Klain*
Geo. Kohlstaedt
Kenneth G. Kohlstaedt
Karl M. Koons
L. H. Kornafel
Bennett Kraft*
Herman W. Kuntz
Fred B. Kurtz
Philip L. Kurtz
I. J. Kwitny
Napoleon LaBonte
C. B. LaDine*
E. B. Lamb
Russell Lamb
Chester K. Lamber*
H. K. Langdon
V. A. Lapenta
Bernard J. Larkin
George F. Lawler
J. K. Leasure
H. L. Leatherman
J. M. Leffel
B. E. Lemmon

Henry S. Leonard
R. U. Lesser*
Leon Levi*
J. R. Lewis
Robert J. Lewis
Melvin Lichtenberg*
M. B. Light
E. O. Lindenmuth
E. L. Lingeman
Goethe Link
J. J. Littell
W. D. Little
John W. Little
John W. Little, Jr.*
R. L. Lochry
W. M. Loehr*
W. H. Long
N. S. Loomis*
G. C. Lord
J. L. Loudermilk*
Oscar D. Ludwig
Emery D. Lukenbill
J. A. MacDonald
D. E. MacGregor
H. F. Machlan*
H. S. Mackey
H. L. Magennis
Charles H. Maly*
Marlow W. Manion
Mortimer Mann
A. L. Marshall
A. L. Marshall, Jr.*
C. R. Marshall
Loren Harold Martin*
Melvin Masters*
R. J. Masters
W. B. Matthew*
B. J. Matthews
R. O. McAlexander
James S. McBride
Joseph T. C. McCallum
D. J. McCarthy
C. H. McCaskey
C. O. McCormick
P. E. McCown
C. B. McCulloch
D. R. McDevitt
E. C. McDonald
Chas. J. McIntyre
J. M. McIntyre*
Robert McKay
A. D. McKinley*
John D. McLeay
Walter McMannis
F. G. McMillan
Charles McNaull
R. J. McQuiston*
D. S. Megenhardt
Lyman T. Meiks
A. F. Melloh*
C. D. Mendenhall
W. E. Mendenhall
M. H. Mentendick
Earl Mericle*
H. O. Mertz
Paul Merrell
A. J. Micheli
H. N. Middleton
R. C. Miller*
J. Don Miller
Raleigh S. Miller
Wm. T. Miller
Earl H. Mitchell
R. E. Mitchell
W. P. Moenning
W. F. Molt
B. B. Moore
H. T. Moore*
R. M. Moore
Chas. A. Morgan
Walter P. Morton
R. H. Moser
M. H. Mothersill
J. E. Moutoux
A. E. Mozingo
Lillian B. Mueller
P. L. Mull
E. B. Mumford
Chas. W. Myers
R. V. Myers
C. A. Nafe
Louis T. Need*
A. S. Neely
O. C. Neier
John R. Newcomb
T. B. Noble, Jr.
T. B. Noble, Sr.
H. F. Nolting
O. B. Norman
Wm. H. Norman
H. L. Norris
Mary A. Norris
Sidney Norwick*
Myron H. Nourse*
Harold C. Ochsner
Thomas A. O'Dell
C. E. Orders
Harry S. Osborne
R. C. Ottinger
F. V. Overman
J. E. Owen*
E. E. Padgett
Irvine H. Page
Harry Pandolfo
John F. Parker*
Portia Parker
Martin T. Patton
Ira F. Peak*
Lyman R. Pearson
A. C. Pebworth
I. T. Pebworth*
Franklin B. Peck
W. E. Pennington
Erwin Permer
R. J. D. Peters
T. V. Petranoff
B. B. Pettijohn
F. L. Pettijohn
Dudley Pfaff*
John A. Pfaff
C. A. Pfafflin
Jack E. Pilcher
Jos. B. Quigley*
Harry S. Rabb*
Frank B. Ramsey*
J. V. Reed
Philip B. Reed
R. R. Reed*
Russell C. Rees
Chas. A. Reid*
Jack Reiss*
Simon Reisler
Thos. W. Reul*
F. C. Reynolds
Theo. D. Rhodes
Raymond M. Rice
Thurman B. Rice
Arthur B. Richter
J. W. Ricketts
O. W. Ridgeway
J. F. Rigg
E. B. Rinker
J. O. Ritchey
Wayne L. Ritter*
Ray Robertson
Clarke Rogers
T. P. Rogers*
C. W. Roller
F. T. Romberger, Jr.*
Bernard D. Rosenak*
W. B. Rossman
D. Hamilton Row
Gerald Stone Rubin*
Karl R. Ruddell
C. L. Rudesill
Ernest Rupel
Byron K. Rust*
Martin L. Ruth
C. W. Rutherford
Russell Sage
John A. Salb
Max C. Salb*
M. H. Sandorf
Wm. A. Sandy*
C. R. Schaefer
E. W. Scheier
A. J. Schneider
Carl J. Schneider*
Ada E. Schweitzer
I. W. Scott*
C. F. Seaman*
Albert Seaton
G. W. Seaton
Herbert L. Sedam*
Louis H. Segar
Marion R. Shafer
Wm. Shimer
L. L. Shuler
W. A. Shullenberger
O. W. Sicks*
C. W. Siekerman
T. N. Siersdorfer
H. W. Sigmond
J. L. Sims*
David H. Sluss*
John W. Sluss*
J. H. Smiley
D. L. Smith*
E. Rogers Smith*
Francis C. Smith
Lester A. Smith
Roy Lee Smith*
Wilbur F. Smith
Byron Snider
R. A. Solomon
Martha C. Souter
J. W. Sovine*
J. J. Spalding*
Alan L. Sparks*
Urbana Spink
L. W. Spolyar
Carl B. Sputh
Carl B. Sputh, Jr.
James B. Stalker
C. A. Stayton
Brandt F. Steele
Julius T. Steffen
Nathan Stern
Geo. C. Stevens
S. L. Stevens*
Walter Stoeffler*
A. T. Stone
D. F. Stone*
Jos. L. Storey
Roy B. Storms
Tyler J. Stroup*
J. H. Stygall
Herbert F. Sudranski
T. L. Sullivan
John R. Swan
Richard Carl Swan
J. F. Swayne
Dan E. Talbott*
C. C. Taylor*
F. W. Taylor
Merrel H. Taylor
Frank Teague
E. J. Teeter
Ray Tharpe*
Hugh K. Thatcher, Jr.*
Morris C. Thomas*
C. F. Thompson
J. V. Thompson
Kenneth Thornburg*
Harold C. Thornton
J. R. Thrasher
A. L. Thurston
H. F. Thurston
H. S. Thurston
W. E. Tinney
W. B. Tinsley
E. P. Tischer*
C. J. A. Torrella*
V. F. Tremor
Victor A. Teixler*
H. M. Trusler
Warren S. Tucker
R. M. Vandivier
H. A. VanOsdol
C. F. Voyles
J. Thayer Waldo
E. DeWolfe Wales
F. C. Walker
Robert K. Walker*
Wesley Conrad Ward
F. C. Warfel*
Alvah P. Warman*
J. H. Warvel
E. S. Waymire
John W. Webb
J. O. Wehrman
C. G. Weigand
H. J. Weil
Chas. A. Weller
Joseph L. West
A. F. Weyerbacher
Homer H. Wheeler
J. T. Wheeler (H)
Donald J. White
John M. Whitehead
Irwin W. Wilkens*
R. W. Wilkins*
Luther Williams
E. R. Wilson
Matthew Winters
Wm. Wise
Wm. N. Wishard, Jr.
Donald J. Wolfram*
Isabel J. Wolfstein
George Wood
Donald E. Wood
Abram S. Woodard, Jr.
Wm. V. Woods
J. W. Wright
Frederick Wyttenbach
John E. Wyttenbach*
J. B. Young
John M. Young

Lawrence

K. H. Stephens

New Augusta

E. O. Asher
D. E. Brown

Oaklandon

E. B. Boyer
H. W. Cox
Frank Jennings

Southport

Morris B. Paynter

Wanamaker

George Jones

MARSHALL COUNTY

Argos

J. M. Alexander*
Lloyd H. Davis
F. H. Kelly
L. C. Lund*
H. M. McCracken
R. B. Miller*

Bremen

Wallace Buchanan
H. L. Burke
R. H. Draper
John M. Thompson*
H. D. Tripp

Bourbon

Cova R. Graham
Geo. Marshall

Culver

Milan D. Baker
C. G. Mackey
Donald Reed*
H. H. Tallman

Plymouth

P. S. Connell*
L. D. Eley (H)
C. F. Holtzendorff
P. R. Irey
Maurice O. Klingler
Harry Knott
F. G. Perry*
T. R. Possolt
Walter K. Schlosser
R. Clarence Stephens
L. W. Vore

Tyner

A. A. Thompson

MIAMI COUNTY

Amboy

E. E. Shrock

Bunker Hill

R. E. Barnett*

Chili

H. E. Line

Converse

S. S. Frybarger
Fred Malott*

Denver

C. F. Jordan

Mexico

C. F. Rendel

Miami

James B. Shoemaker

Peru

J. B. Berkebile*
E. Lee Burrous
O. U. Carl
B. F. Eikenberry
H. W. Eikenberry*
Donald W. Ferrara
S. J. Ferrara
Cloyn R. Herd
F. M. Lynn
S. D. Malouf
R. E. Wildman
J. E. Yarling

MONROE COUNTY

Bloomington

F. H. Austin
R. C. Badertscher*
D. C. Barrett*
F. H. Batman
Neal Baxter*
R. M. Borland
J. P. Boulware
W. N. Culmer
Naomi Dalton
R. A. Demotte*
Dillon Geiger*
Albert Goodrich
H. D. Hepner
Chas. E. Holland*
D. J. Holland
Phillip Holland*
J. E. Luzadder
R. E. Lyons, Jr.*
C. H. Marchant*
B. D. Myers
Margaret T. Owen
M. F. Poland
H. S. Ramsey*
Wm. C. Reed*
O. F. Rogers, Jr.*
R. C. Rogers
Ben R. Ross
Edith B. Schuman
John H. Smith
R. D. Smith
Robert C. Speas
James N. Topolgus
Frank F. Tourner
W. T. Van Dament
T. L. Wilson
James W. Wiltshire

Ellettsville

H. W. Byrn

Smithville

G. L. Mitchell

MONTGOMERY COUNTY

Crawfordsville

T. Z. Ball (H)
G. A. Collett
Thomas L. Cooksey
Fred N. Daugherty*
Wemple Dodds
J. B. Griffith
H. A. Kinnaman
J. M. Kirtley*
Byron N. Lingeman
Robt. Millis*
W. M. Mount*
Norman F. Peacock*
Robert R. Pollom
J. L. Sharp*
W. M. Taylor
Hawthorne C. Wallace*
G. T. Williams (H)

Darlington

J. W. Humphreys
Ralph E. Otten

Ladoga

Frank T. Denny

New Richmond

H. D. Kindell

Waveland

J. S. Noblitt

Waynetown

F. D. Johnson

Wingate

C. B. Parker

MORGAN COUNTY

Martinsville

P. M. Alexander
C. G. Bothwell
K. L. Dickens
H. H. Dutton
Robert Egbert
Leon Gray*
Edw. M. Pitkin
M. C. Pitkin
S. P. Scherer (H)
Austin D. Sweet
Harvey E. White*
H. R. Willan

Mooresville

Chas. Wm. Comer*
J. E. Comer
Kenneth Comer*
W. J. Stangle*
C. H. White

Morgantown

M. G. Murphy

Paragon
L. M. Hughes

NOBLE COUNTY

Albion
Chas. M. Bowman*
W. F. Carver (H)
J. W. Morr
J. R. Nash

Avilla
K. D. Sneary
Wm. Veazey (H)

Cromwell
J. H. Nye
A. J. Rarick*

Kendallville
C. B. Goodwin (H)
Richard R. Gutstein
F. C. Hardy
I. H. Lawson
F. W. Messer
C. E. Munk
Gerald Shortz*
J. D. Seybert
A. A. Southwick
H. O. Williams
S. J. Young

Ligonier
Ralph Arnold*
J. B. Schutt
Q. F. Stultz

Rome City
August L. Fipp

Wolflake
H. A. Luckey
R. C. Luckey

ORANGE COUNTY

French Lick
George R. Dillinger*

Leipsic
G. G. Colglazier

Orleans
Robert E. Baker (H)
Wm. E. Schoolfield
Oscar H. Stewart (H)

Paoli
Ivan A. Clark
Keith Hammond*
John K. Spears
S. F. Teaford

West Baden
Clarence E. Boyd
Mart Hassenmiller
H. L. Miller

OWEN COUNTY

Coal City
Boaz Yocum

Freedom
James T. Hazel

Gosport
C. E. Stouder*
J. Webb Thom*

Patricksburg
R. H. Richards

Spencer
M. S. Brown*
Claude D. Greene
Oren Kay
Chas. F. Pectol
Robert H. Pierson*
Julia S. Thom*

PARKE-VERMILLION COUNTY

Bloomingdale
F. G. Greene

Cayuga
R. E. Brown
S. C. Darroch

Clinton
W. D. Gerrish
C. M. White
I. D. White
C. M. Zink

Dana
Wm. C. Myers
A. E. Sabin

Newport
J. L. Saunders

Perrysville
W. A. Johnson

Rockville
W. C. Anderson*
J. R. Bloomer
R. S. Bloomer*
T. J. Collings
Julia R. Davin
E. H. Dowell
Casper Harstad*
Charles U. Morris
H. B. Pirkle
R. A. Staff*

Rosedale
C. S. White

St. Bernice
S. I. Green

PERRY COUNTY

Bristow
S. L. Epple

Cannelton
H. R. Bush
E. E. Schriefer

Leopold
J. E. Taylor

Tell City
P. J. Coultas
H. S. Dome
David Dukes
W. T. Hargis (H)
N. A. James

Troy
E. R. Snyder

PIKE COUNTY

Petersburg
G. A. Dickinson*
J. T. Kime (H)
A. R Logan
L. M. McNaughton*
M. H. Olmstead*
T. R. Rice (H)

Velpen
D. E. Taylor

Winslow
G. B. DeTar
L. D. Goodwin
L. R. Miller

PORTER COUNTY

Chesterton
R. H. Axe
A. J. Cramp
J. W. Dale
W. M. Parkison

Hebron
R. P. Blood
W. C. Butman
F. J. Kleinman

Kouts
J. E. Dittmer*
S. E. Dittmer

Valparaiso
J. C. Brown*
P. M. Corboy*
Carl M. Davis
Eugene DeGrazia*
C. H. Dewitt
A. O. Dobbins
G. R. Douglas
Ralph C. Eades*
J. R. Frank
M. B. Fyfe
Mark L. Loring*
E. H. Miller
E. H. Powell
G. H. Stoner
Arthur J. Van Winkle
P. C. F. Vietzke

Wheeler
J. L. Gordon

POSEY COUNTY

Cynthiana
S. B. Montgomery

Mt. Vernon
W. B. Challman*
W. E. Jenkinson
F. W. Oliphant*
J. R. Ranes

New Harmony
Ernest Oppenheimer
H. E. Ropp*

Poseyville
Paul Boren*
S. W. Boren (H)
George C. Smith
A. L. Woods

Wadesville
Charles Arburn (H)

PULASKI COUNTY

Francesville
R. J. Ives

Medaryville
T. C. Hall
C. E. Linton

Monterey
A. J. Kelsey

Winamac
Thos. E. Carneal
H. J. Halleck*
G. H. McCaskey
Wm. K. Sennett*

PUTNAM COUNTY

Bainbridge
Lester W. Veach

Cloverdale
Frederick Dettloff*
E. M. Hurst

Greencastle
Charles L. Aker
W. J. Fuson*
J. F. Gillespie (H)
W. R. Hutcheson
W. M. McGaughey
G. F. Parker
Gilbert D. Rhea*
Dick J. Steele*
George Tennis
Wm. R. Tipton*
C. C. Tucker
E. V. Wiseman

Roachdale
L. F. Gwaltney
C. N. Stroube

Russellville
E. E. Richards

RANDOLPH COUNTY

Farmland
Russell B. Engle*
Byron Nixon

Lynn
Wayne Harman
L. E. Jordan*
C. E. Martin

Modoc
H. R. Shallenberger

Parker
P. C. Barnard

Ridgeville
Arvin Henderson
G. H Schenk

Union City
Leroy B. Chambers*
George H. Davis
D. L. Phipps (H)
L. K. Phipps
Robert W. Reid
Fred Ruby
R. A. Voisinet

Winchester
A. M. Brenner*
I. E. Brenner
W. S. Dininger
John M. Engle*
J. H. Moroney (H)
L. W. Painter
J. S. Robison
C. R. Slick*
P. W. Sparks
V. K. Stoelting*

RIPLEY COUNTY

Batesville
J. C. Bigham
J. T. Carney
L. W. Hisrich

Holton
M. F. Daubenheyer

Milan
Lowell G. Hunter
A. A. Whitlatch*
Bine Whitlatch
I. A. Whitlatch

Osgood
George S. Row
R. Lee Smith

Sunman
Chas. F. Fletcher
W. C. McConnell*

Versailles
S. R. Ellis*
L. H. Hopkins
Noel D. Moran

RUSH COUNTY

Carthage
William S. Coleman
G. B. McNabb

Milroy
C. W. Worth

Rushville
C. C. Atkins
J. F. Bowen
Donald I. Dean*
F. H. Green, Jr.
Lowell M. Green
R. O. Kennedy
H. P. Metcalf (H)
Roy E. Shanks
C. L. Smullen (H)
Willard C. Smullen*
E. I. Wooden (H)

ST. JOSEPH COUNTY

Lakeville
John T. How
Louis E. How

Mishawaka
James G. Bostwick
Verna Christophel
W. B. Christophel
W. N. DuVall
Chas. J. Goethals
L. L. Grzesk*
B. M. Hutchinson
F. W. Logan
R. M. McDonald*
W. Robt. Orr*
Jacob Rosenwasser
E. M. Sirlin*
L. P. VanRie
J. W. Ward*
Merle E. Whitlock*
H. C. Wurster
M. D. Wygant
B. J. Wyland
Henry J. Zimmer

New Carlisle
J. E. Luzadder, Jr.

North Liberty
John J. Hardy

South Bend
J. A. Abel
Robt. B. Acker
R. K. Arisman*
E. K. Ayling
W. H. Baker
Morris Balla
S. E. Bechtold*
R. D. Berke*
David A. Bickel
P. J. Birmingham
Chas. A. Bishop
Erwin Blackburn*
B. J. Bolka
John C. Boone (H)
C. S. Bosenbury
Harry Boyd-Snee (H)
R. L. Braunsdorf
Fred W. Buechner*
C. F. Bussard
Ruth Campbell
F. R. Nicholas Carter
J. V. Cassady
J. R. Caton*
Stanley A. Clark
Chas. D. Clark*
Wm. H. Clark*
George Colip*
David H. Condit
H. L. Cooper
E. W. Custer
Carl S. Culbertson*
E. L. Dietl*
R. B. Dugdale
J. A. Duggan
Bernard Edwards
Alfred Ellison
Lester G. Ericksen
Ladislaus Faltin
W. C. Farnham
W. J. Filipek
Ben Z. Firestein*
C. M. Fish
Edson C. Fish
Kenneth B. Fisher*
Lawrence F. Fisher
L. L. Frank
DeVon W. Frash
Gladys D. Frith
Louis G. Frith
Geo. E. Gates*
Geo. J. Geisler
M. M. Gilman
A. S. Giordano
Thaddeus Goraczewski
J. M. Gordon
George F. Green
Donald Grillo*
Paul E. Haley
Vachelle E. Harmon
H. W. Helmen
M. I. Hewitt*
John W. Hilbert
Marion W. Hillman*
W. H. Hillman
R. V. Hoffman
Lillian S. Holdeman
R. W. Holdeman*
A. D. Huffman
Carroll Hyde
Bernard A. Kamm
Eliz. D. Kane
Else Klein
Arthur L. Knapp
Kenneth T. Knode
A. A. Kramer
Wm. H. Lane
Joseph E. Lang*
C. J. Langebahn*
Casimir Libnoch*
N. S. Lindquist
C. M. Malstaff*
J. E. McMeel
G. E. Metcalf
W. H. Mikesch
Milo Miller
WilliamE. Miller*
H. F. Mitchell (H)
C. A. Mott
Eugene C. Murphy*
Josephine Murphy
Raymond Nelson*
Thomas B. Pauszek
Andrew Petrass
Harold D. Pyle*
E. L. Rigley
Herman H. Rodin
George M. Rosenheimer
C. J. Rudolph*

R. B. Sanderson
Isadore Sandock
Harry H. Sandoz*
Louis A. Sandoz
C. E. Savery
H. A. Schiller*
K. E. Selby*
C. M. Sennett
R. L. Sensenich
H. B. Shedd
P. G. Skillern
H. H. Slominski*
W. L. Spalding*
R. W. Spenner
Daniel D. Stiver*
A. M. Sullivan
C. C. Terry*
Ray H. Thomas
Maurice J. Thornton
P. C. Traver
W. G. Wegner
J. L. Wilson
Herbert Weinberger

Walkerton

C. D. Linton

SCOTT COUNTY

Scottsburg

T. N. Hill
Marvin McClain
Floyd Napper
J. P. Wilson (H)

SHELBY COUNTY

Fairland

R. N. Nigh*
M. M. Wells

Flat Rock

J. A. Davis

Morristown

V. C. Patten

Shelbyville

F. E. Bass
R. W. Gehres*
E. G. Grove
L. J. Hord*
L. F. Hulsman
Herbert Inlow*
W. D. Inlow
C. Fred Inlow
Samuel Kennedy (H)
H. D. Miller*
D. B. Silbert*
P. R. Tindall
W. R. Tindall*
W. W. Tindall
O. R. Wilson*

Waldron

S. B. Coulson
J. E. Keeling (H)

SPENCER COUNTY

Chrisney

Fred C. Glenn
C. L. Springstun

Dale

John H. Barrow

Gentryville

Claude C. Lomax

Grandview

H. Q. White

Lamar

N. L. Medcalf

Richland

W. P. Jolly

Rockport

K. C. Atchison
C. D. Ehrman
John Clay Glackman, Sr.*
John Clay Glackman, Jr.*

St. Meinrad

J. W. Crain*

STARKE COUNTY

Hamlet

I. L. DeNaut

Knox

J. F. DeNaut
J. R. Matthew*

North Judson

O. T. Benz
Charles R. Farabee
Albert Fisher

STEUBEN COUNTY

Angola

M. M. Crum*
L. L. Eberhart
K. L. Kissinger*
W. H. Lane (H)
O. H. Swantusch
W. F. Waller

Fremont

B. A. Blosser

Hamilton

J. F. Cameron (H)

Helmer

R. D. Denman

Pleasant Lake

G. N. Lake

SULLIVAN COUNTY

Carlisle

J. S. Brown
Charles E. Whipps

Dugger

E. M. Deputy
F. M. Dukes

Fairbanks

H. E. Bland

Farmersburg

Harry O'Dell
J. T. Oliphant

Hymera

C. W. Asbury
C. U. Thralls

Merom Station

L. G. Zerfos

Shelburn

J. H. Wrork

Sullivan

Marion H. Bedwell
J. M. Billman (H)
C. F. Briggs
E. M. Corbin
James H. Crowder
J. R. Crowder
Paul Higbee
J. B. Maple
G. D. Scott
Irvin H. Scott
W. N. Thompson (H)

SWITZERLAND COUNTY

Patriot

Katherine Jackson

Vevay

Fred C. Bakes
L. H. Bear
G. W. Copeland
R. M. Copeland (H)
Geo. E. Ellerbrook
Jack King

TIPPECANOE COUNTY

Colburn

Robert H. Wagoner

Dayton

E. E. Hamilton

Lafayette

C. H. Ade
Mary Ade
John L. Arbogast*
A. C. Arnett
A. J. Bauer
R. H. Bayley
Harry Buhrmester*
R. R. Calvert*
Ira Cole
W. T. Cox*
A. B. Coyner
F. S. Crockett
G. R. Donahue*
M. J. Eaton
Russell A. Flack*
M. G. Frasch
Richard E. Gery*
Thomas G. Graham*
O. E. Griest (H)
A. W. Hadley
L. E. Harris*
Bernard J. Harvey*
G. W. Herrold*
L. J. Holladay*
F. P. Hunter
Charles Hupe (H)
R. G. Ikins*
H. E. Klepinger
H. J. Laws
Kenneth F. Laws
Guy P. Levering
F. A. Loop
F. A. Loop, Jr.*
H. G. Martin
D. C. McClelland
D. H. McKinney*
John S. Morrison
K. O. Neumann*
A. B. Olsen
Harold E. Parker
Samuel Pearlman
F. W. Peyton*
Karl C. Randall II*
Frank W. Ratcliff*
Wm. M. Reser (H)
F. T. Romberger
C. H. Rommel*
E. B. Ruschli
P. H. Schmiedicke
J. W. Shafer
L. O. Sholty
L. C. Smith*
Edward Stahl
H. J. Stoen*
J. W. Strayer
H. N. Swezey
G. A. Thomas
C. J. Trout*
Geo. R. Tubbs
E. L. Van Buskirk
Earl VanReed
W. W. Washburn*
C. M. Wray
Thomas Youman*

West Lafayette

H. H. Ash*
J. C. Burkle
A. J. Cole
Frank M. Hall*
Louise J. Meikle
S. J. Miller
Bertha Rose

Romney

O. L. McCay
E. T. Mitchell

West Point

Ramon B. DuBois*
C. L. Rowland

TIPTON COUNTY

Kempton

Albert E. Stouder

Sharpsville

W. F. Tranter

Tipton

A. E. Burkhardt
B. A. Burkhardt*
J. V. Carter*
H. E. Grishaw
G. H. Warne

Windfall

S. M. Cotton
H. L. Ericson
E. B. Moser*

VANDERBURGH COUNTY

Evansville

R. R. Acre
R. N. Adler*
A. E. Allenbaugh
J. E. Alexander*
C. S. Baker
Herman Baker
J. S. Baker
I. C. Barclay
Bruce H. Beeler
Frank L. Bigsby, Jr.*
Stella Boyd
Donald W. Brodie*
S. L. Bryan
C. R. Buikstra
John J. Cacia
John L. Cassidy*
Grace Caufman
A. F. Clements*
Wm. M. Cockrum
William L. Cole*
W. H. Coleman
Herman Combs*
John H. Combs*
Pearl B. Combs
Earl Conover
I. E. Cottingham (H)
Albert L. Crane
Paul D. Crimm
C. W. Cullnane
W. L. Daves*
Wm. D. Davidson*
W. R. Davidson
E. K. Denzer*
Wm. Oliver Denzer
H. S. Dieckman
Thomas Dobbins
M. S. Durkee*
W. A. Dycus*
W. S. Ehrich
S. J. Eichel
W. W. Eichelberger
J. A. Eisterhold
E. L. Engel*
Henry J. Faul*
Dallas Fickas
W. H. Field
E. L. Fitzsimmons*
C. J. Folz
Wm. G. French
L. E. Fritsch
John H. Hare
W. L. Harris
Paul Hart*
C. A. Hartley, Jr.
F. Minton Hart*
Wm. F. Healy
Albert Heard
Jos. M. Heberer
Morton Helper*
C. C. Herzer
Warren W. Hewins
J. N. Jerome
G. C. Johnson
Stephen L. Johnson
H. M. Kauffman
R. L. Kleindorfer*
B. V. Lally
Shirley C. Lang
C. S. Laubscher
Clarence Laubscher*
Wm. Laval
Joseph C. Lawrence*
Chas. F. Leich*
Ermil Leslie*
Jesse R. Logan*
Harold D. Lynch
Paul Lynch
J. H. McCool*
W. E. McCool
J. D. McDonald*
Walter McDowell*
L. K. McMurtry
Pierce MacKenzie*
Clarence G. Macer
H. H. Marks*
E. E. Mason*
Rudolph A. Mehl
K. T. Meyer
Milton Miller*
Minor Miller
Robert J. Miller*
Victor H. Mino
Marion Morgan
Adeline F. Muelchi
Henry Nenneker
A. E. Newman
Alfred Niedermeyer
E. W. Oliver
Walter Pollard
Julian Present
Willis L. Pugh*
Isidor Raphael*
A. W. Ratcliffe
Bernard Ravdin
Marcus Ravdin (H)
Clarence E. Reich
T. F. Reitz
J. S. Rich*
Clifford Richey*
Earl U. Robinson
B. B. Rosenblatt
Geo. M. Royster
R. A. Royster
H. C. Ruddick
C. P. Schneider*
V. V. Schriefer
Chas. L. Seitz
Robert A. Smithson, Jr.*
W. R. Springstun*
Harmon L. Stanton
O. C. Stephens
F. C. Stewart
Urban Stork*
Chas. C. Sutter
D. G. Tweedall
Daniel C. Tweedall Jr.*
G. B. Underwood
Victor Varner
Robert W. Viehe
John W. Visher
H. Lowell Watson*
Edgar H. Weber
H. G. Weiss
J. Y. Welborn
Mell B. Welborn
Wm. M. Wilhelmus
Charles F. Willis*
J. H. Willis
George Willison
Ralph Wilson
S. W. Wishart
Wm. H. Wood*
W. P. Woods
J. F. Wynn
C. W. Yeck
P. E. Yunker*

VIGO COUNTY

New Goshen

J. B. Loving

Prairie Creek

J. R. Wilson

Riley

Virgil French
Norman Silverman*

Seelyville

C. S. Carmichael

Terre Haute

O. O. Alexander
Orris T. Allen
W. C. Anderson*
W. D. Asbury
E. R. Baldridge
W. O. Baldridge
H. L. Bernheimer
Curtis Bland
Leon L. Blum
M. J. Bohannon
Henry W. Bopp
Stephen C. Bradley
Paul J. Bronson
R. R. Brown
A. L. Cabell
G. C. Carpenter
Ott Casey
A. W. Cavins
Chas. N. Combs
Stuart R. Combs*
G. C. Congleton
J. J. Connelly
W. G. Crawford
Claude A. Curry
J. E. Dailey
H. B. Decker
G. W. Dyer*
Eugene Eisenlohr
D. H. Forsyth
J. E. Freed
J. O. Garrigus
D. A. Gerrish
Ivan Gilbert*
John R. Gillum
Hubert T. Goodman*
H. B. Hamilton
R. G. Harkness
E. R. Haslem*
John R. Haslem
D. A. Hoover
J. J. Hoover
Edgar J. Hunt
W. B. Hunt (H)
B. M. Hutchings
Joseph Kunkler
Wm. C. Kunkler
C. Russell LaBier*
Clarence R. LaBier

Allen H. Lee
W. L. Loewenstein
C. L. Luckett
Chas. L. Mahoney
L. A. Malone
Don M. Mattox*
E. C. McBride
Noel S. McBride
F. G. McCarthy
W. C. McCormick*
James W. McEwen*
D. B. Miller
Albert M. Mitchell
H. M. Mullikin
G. G. Musselman
E. O. Nay
E. S. Niblack
G. A. Nicoll
Robert W. Oliphant
H. J. Pierce
James V. Richart*
Floyd Riggs
Milton M. Rubin
F. E. Sayers
Edw. J. Schott
Etta B. Selsam
V. A. Shanklin
Louis Siebenmorgen
I. H. Sloss
S. A. Smoots
James Spigler
O. R. Spigler
W. E. Stewart
Daniel S. Strong
John M. Sullivan*
F. A. Tabor
M. C. Topping
Arnold Utterback
C. R. Van Arsdall*
M. B. Van Cleave
H. R. Vandivier
Edward C. Voges*
Frank L. Wedel
J. H. Weinstein
James V. White*
F. E. Wiedemann
Fred Wilson*
Charles Wyeth
J. Rudolph Yung
E. T. Zaring
Paul F. Zwerner*

WABASH COUNTY

LaFontaine

J. L. Walker

North Manchester

G. K. Balsbaugh*
O. G. Brubaker
Joy F. Buckner
L. Z. Bunker
Chas. E. Cook*
E. P. Cripe*
I. E. Perry
G. W. Seward*
J. L. Warvel

Roann

James G. Kidd

Wabash

Edgar K. Black
L. E. Jewett
Minnetta Jordan
R. M. LaSalle
R. A. Naugle
Wm. Pearson*
Arthur P. Rhamy*
Lorin Slegelmilch
A. J. Stehen
Joseph A. Wall
F. M. Whisler

WARRICK COUNTY

Boonville

Bowen Hoover*
DeWitt Loomis
Charles L. Luckett*
W. C. Stover*
Paul Wilson

Elberfeld

J. H. Gabhart
L. S. Taylor

Newburgh

J. L. Fuelling*
Chas. M. Wilhelmus
R. E. Zwickel*

Tennyson

C. E. Springstun

WASHINGTON COUNTY

Campbellsburg

Thos. K. Tower

Fredricksburg

F. K. Allen

Pekin

Wm. L. Green
P. L. Mull

Salem

Donald Colglazier*
J. P. Gilliatt*
Irvin Huckleberry
J. I. Mitchell
Claude B. Paynter
L. W. Paynter

WAYNE-UNION COUNTIES

Cambridge City

Loren F. Ake*
M. E. Clark
Charles E. Kenyon*
Jos. N. Study (H)

Centerville

W. M. Barton*

Dublin

D. L. Lutes

Fountain City

Leon T. Cox

Hagerstown

Chester A. Marsh
Wm. Miller

Liberty

Franklin T. Dubois
W. B. McWilliams
W. A. Thompson

Richmond

Hubert E. Allen
W. E. Ballenger*
Paul W. Blossom
C. S. Bond (H)
F. P. Buche
J. C. Clawson
Frank H. Coble*
Edgar C. Denny
Paul E. Dingle*
Volney N. Fackler
V. C. Griffis
Harvey Hadley
F. E. Hagie
Carl J. Harmon*
Gladys H. Harmon
George R. Hays
Russell L. Hiatt*
H. D. Hill
Paul G. Hill*
Curtis R. Hoffman
E. E. Holland
C. J. Hufnagel
Gayle J. Hunt*
George B. Hunt
Paul S. Johnson
Freeman E. Keith
Jos. H. Kinsey
F. W. Krueger
Glen Ward Lee*
James F. Lewis*
Russell Malcolm*
S. C. Markley
Elwood J. Meredith*
Paul S. Pentecost*
William L. Porter*
Helene B. Rogers
H. P. Ross
L. F. Ross
Allen Stamper*
Howard E. Sweet*
W. R. Taylor
Horace Wanninger
E. B. Weinstein*
Arthur J. Whallon
Mary Wickens
Paul D. Williams
G. H. Wisener
William C. Vance*
M. W. Yencer

WELLS COUNTY

Bluffton

H. D. Brickley
Chas. E. Caylor
Harold D. Caylor
Truman E. Caylor
T. O. Dorrance*
Jack L. Eisaman
Max M. Gitlin*
Wm. A. Gitlin*
O. G. Hamilton
Leonard Long
C. H. Mead
G. B. Morris
Allen C. Nickel
H. Brooks Smith

Liberty Center

Chas. M. Gingerick*

Montpelier

F. M. Reynolds

Ossian

E. W. Dyar
W. E. Hardin
R. C. Wybourn

WHITE COUNTY

Burnettsville

J. P. Galbreth

Brookston

G. L. Derhammer*

Chalmers

C. R. Netherton

Monon

W. W. Houser*
S. E. McClure

Monticello

John C. Carney
H. B. Gable
H. W. Greist
W. V. Morris*
E. G. Ricker

Wolcott

Violet M. Crabbe
W. A. Spencer

WHITLEY COUNTY

Churubusco

J. H. Briggs
E. A. Hershey

Columbia City

Otto F. Lehmberg*
Arthur Leiter
E. V. Nolt
Benj. F. Pence*
O. V. Schuman

Larwill

L. W. Tennant

South Whitley

P. A. Garber
V. P. Huffman
W. Ernest Wilkin

MEMBERS RESIDING OUTSIDE INDIANA

E. W. Austin,* 1209 Felder Ave., Montgomery, Ala.....Madison
P. H. Loveless, Morenci, Ariz.....St. Joseph
C. L. Poston, Marine Base, San Diego, Calif.....Wayne-Union
D. R. Ulmer, 201 Garden Circle, Duedin, Fla.....Vigo
W. H. Ristine (H), Hotel Thelma, Lakeland, Fla.....Montgomery
William McQueen, 2117 Hill Ave., Apt. 6, Tampa, Fla.....Marion
J. P. Chapin, Veterans Administration Facilities, Augusta, Ga. .....Madison
S. Kenosha Sessions (H), 102 E. Spring St., Anna, Ill.....Marion
Marshall R. Bascomb, Calumet City, Ill.....Lake
Jos. Diamondstein, 796 St. Line St., Calumet City, Ill.....Lake
C. N. Baganz, Naval Training Station, Great Lakes, Ill.....Wells
F. J. Price, 235 South Grove Ave., Oak Park, Ill.....Grant
John E. Graf, 4332 N. Kilbourne Ave., Chicago, Ill.....Marion
Jean Pilot, 830 So. Michigan, Chicago, Ill.....Lake
Fred O. Clark, Marshall Fields, Fort Riley, Kans.....Elkhart
Willis A. Fromhold,* Box 72, Hodgenville, Ky.....Marion
Guy W. Hamilton, 149 Vernon St., Louisville, Ky.....Jefferson
Peter Knoefel, 101 W. Chestnut St., Louisville, Ky.....Vigo
Max E. Blue, Madison Co. Health Dept., Richmond, Ky. .....Kosciusko
M. L. Connerley,* National Naval Medical Center, Bethesda, Md. .....Marion
Claude D. Holmes,* Holabird Q. M. Depot, Baltimore, Md. .....Marion
V. S. Huggins, Free Hosp. for Women, Brookline, Mass. .....Vanderburgh
Minerva B. Pontius, 207 Observatory, Ann Arbor, Mich.....Vanderburgh
H. B. Bundrant, 7704 W. Jefferson St., Detroit, Mich.....Allen
N. C. Folkening, 1469 Virginia Park, Detroit, Mich.....Marion
Charles Moehlenkamp, 608 S. Hooker Ave., Three Rivers, Mich.....Vanderburgh
Louis Bixler, 621 E. 27th St., Minneapolis, Minn.....St. Joseph
Lucille Carman, University Hospital, Columbia, Mo.....Wabash
W. J. Marshall, 7110 Tulane, St. Louis, Mo.....Howard
H. B. Mettel, Missouri Athletic Club, 405 Washington Ave., St. Louis, Mo.....Marion
George R. Jewett, Veterans Hosp., Lincoln, Nebr.....Wabash
M. P. Cuthbert, 138-26—78th Ave., Kew Garden Hills, Long Island, N. Y.....Howard
Fred F. Shepard, College Corner, Ohio.....Wayne-Union
John M. Lee, 1814 Grand Ave., Dayton, Ohio.....Rush
Wm. H. Morrison, Dayton, Ohio.....LaGrange
J. M. Kercheval, 3304 River Road, Toledo, Ohio.....LaGrange
A. J. Lauer, 735 W. Market St., Lewisburg, Pa.....Lake
Leo. K. Cooper, Patton, Pa.....Lake
Helen M. Richards, Athens, Tenn.....Knox
Hugh Shane, Austin Travis County Health Unit, Austin, Texas .....Wayne-Union
E. L. Mock, 734 Rockwood St., Dallas, Texas.....Knox
P. H. Salmond, Parkland Hospital, Dallas, Texas.....Wayne
S. G. Silverburg, U. S. Vet. Hospital, Waco, Texas .....Delaware-Blackford
Verne K. Harvey, 39 River Road Terrace, Alexandria, Va. .....Marion
L. E. Clark, 603 Medical Arts Bldg., Roanoke, Va. .....Delaware-Blackford
Merle Bundy, U. S. Marine Hospital, Seattle, Wash. .....Washington
Herbert E. Dester, Basnia, Via Raipur, C. P. India.....Marion

Military News

The editorial staff of THE JOURNAL will be pleased to have information concerning the movements, et cetera, of physicians in the armed forces and those being called to the service. We would like to have whatever information anyone wants to send. This applies to those who are in military service as well as those who hear from their friends in the armed forces.

Captain Bellfield Atchison, formerly of Gary but who is now serving in the Medical Corps of the United States Army, is located at the Station Hospital, Erie Proving Ground, Lacarne, Ohio.

Word has been received from Dr. R. J. Baskett, formerly of Jonesboro, that he is serving with the 21st Evacuation Hospital, at Needles, California. He has the rank of a captain and is serving with the medical division of the hospital unit.

Dr. A. E. Burkhardt, of Tipton, has reported that his son, Captain B. A. Burkhardt, was recently appointed chief surgeon of the 14th Field Hospital at Camp Bowie, Brownwood, Texas.

Lieutenant Robert M. Butterfield, former Muncie physician who has been stationed at Fort Bliss, Texas, has been home for a short furlough before going to Carlisle Barracks, Pennsylvania, for a five weeks' training course, after which he will be attached to the 82nd Chemical Detachment at Fort Bliss.

Dr. Harry M. Covell, former practicing physician of Auburn, is now a lieutenant colonel in the 321st Medical Battalion, 96th Infantry Division, Camp Adair, Corvallis, Oregon. He is one of the highest ranking Army men from DeKalb County.

Dr. M. M. Crum, who has been engaged in practice at Angola, has been commissioned a lieutenant in the United States Army Medical Corps and was ordered to report at Camp Barkeley, Texas.

Dr. J. C. Drake, formerly of Anderson, is now a lieutenant commander and is located at the Field Hospital, New River Marine Barracks, North Carolina.

Dr. Robert M. Ferguson, formerly of Rising Sun and more recently of Versailles, director of the Fourth District Health Department, who has had a commission as assistant surgeon in the United States Public Health Service Reserve, was informed that his commission was being activated and that he was to report at the United States Coast Guard Base in New Orleans.

Dr. M. S. Fox, formerly connected with the Associated Group Clinic at Bicknell and now a captain in the United States Army, is now serving in the X-ray Division of the 21st Evacuation Hospital at Needles, California.

Lieutenant Bernard W. Cohen, former Indianapolis physician, reports that he is now with the Medical Corps, U. S. N. R., U. S. Naval Medical Supply Depot, Sydney, New South Wales, Australia, care Postmaster, San Francisco, California.

A captain in the Army Medical Corps, Dr. Roy Geider, formerly of Indianapolis, is now stationed at Fort Sam Houston, Texas.

Captain M. M. Gitlin, a former Bluffton physician, spent a three-day furlough at his home. He was recently transferred from Camp Ord, California, to Camp Pickett, Virginia. He has been named a battalion surgeon.

Dr. Morton Helper, of Evansville, is now serving with the armed forces.

According to word received, Dr. J. W. Humphreys, formerly of Darlington, is now serving somewhere overseas. He is a first lieutenant in the United States Army.

Captain Charles E. Kenyon, formerly of Cambridge City, is now a captain in the Army Medical Corps and is located in the Station Hospital, Camp Butner, North Carolina.

Dr. J. Kenneth Jackson, recently of Aurora, is now serving in the Medical Corps of the United States Naval Reserve, at Norfolk, Virginia. He was assigned the rank of lieutenant (j.g.).

Appointment of Dr. H. S. Leonard, of Indianapolis, as state chief of Emergency Medical Services of the Indiana State Defense Council has been announced by Clarence A. Jackson, state civilian defense director. Dr. Leonard replaces Dr. John W. Ferree, who resigned his position as secretary to the Indiana State Board of Health to become a lieutenant commander in the Naval Reserve Medical Corps, and who is now stationed at the Marine Barracks, Parris Island, South Carolina.

Dr. Paul L. Long, of Anderson, has been commissioned a captain in the United States Army Medical Corps and was ordered to report at Fort Mason, San Francisco, California.

Lieutenant C. H. Maly, formerly of Indianapolis, is now stationed at Robins Field, Wellston Air Depot, Warner Robins, Georgia.

Dr. Floyd S. Martin, former Goshen physician, is now in the Medical Detachment of the 32nd Armored Division, at Rice, California.

Dr. Malcolm E. Miller, passed assistant surgeon with the United States Public Health Service, has closed his office at Goshen and is serving at the United States Coast Guard Training Station, at Manhattan Beach, Brooklyn, New York.

We are informed that Dr. Louis T. Need, of Indianapolis, is a lieutenant in the Medical Corps, and that he is now stationed outside the continental limits of the United States. His address is: U. S. Naval Mobile Unit No. 4, care Fleet Postoffice, San Francisco, California.

The present address of Lieutenant William K. Newcomb, former Royal Center physician, is Camp Young, Indio, California, where he is stationed at the 54th Evacuation Hospital.

Dr. William R. Tindall, of Shelbyville, is now a lieutenant in the Medical Corps at Camp Kidd, San Diego, California.

A lieutenant commander's rating was given to Dr. Leslie Wilson, of Fort Wayne, who was assigned to duty at the Naval Base at Peru, Indiana.

Lieutenant W. Robert Orr, former Mishawaka physician, reports that he has been transferred from Coffeyville, Kansas, to the Enid Army Flying School, Enid, Oklahoma.

Advancement from the rank of captain to major was given to Dr. John L. Sharp, former Crawfordsville physician, who has been serving with the Army Medical Corps at Fort Knox, Kentucky, and who was transferred to the Mayo Clinic at Rochester, Minnesota, where he is taking a special course in anesthesiology.

Dr. Joseph S. Skobba, former superintendent of the Muscatatuck Colony at Butlerville, is now Lieutenant Colonel Skobba and has been made the chief of the Neuropsychiatric Service at the Lawson General Hospital, at Atlanta, Georgia.

Dr. Joseph H. Stamper, formerly of Middletown, is now a lieutenant commander and is serving at the United States Naval Hospital at Bremerton, Washington.

Dr. Harry W. Salon, of Fort Wayne, was commissioned as a lieutenant commander in the Navy, reporting for duty at the Naval Pier in Chicago.

Colonel Walter M. Stout, formerly of New Castle, has been appointed commanding officer of the Station Hospital at Camp Shelby, Mississippi.

Major H. C. Wallace, Crawfordsville physician, has reported for active duty at Camp Breckenridge, Kentucky.

Captain Frank W. Ratcliff, formerly of Lafayette, is located at the Station Hospital, New Orleans Staging Area, New Orleans, Louisiana, where he is the chief of the Anesthesia and Operating Room Section.

The Floyd County Emergency Medical Service has been awarded the first citation of merit, in the state of Indiana, by the Office of Civilian Defense of the Fifth Army Service Command, for excellence of organization. The certificate of merit was presented to Dr. Augustus P. Hauss, organizer and director of the local emergency medical unit by Lt. Col. William S. Keller, regional medical officer of the Fifth Region of Civilian Defense.

Lieutenant Commander John R. Phillips, of Michigan City, did not get down to French Lick for the very good reason that for some time he has been stationed somewhere in the British Isles, but we have a good story about him just the same. This comes from Ernie Pyle, "The Hoosier Vagabond," as it appeared in the *Indianapolis Times:*

Oh, Say, Mrs. Phillips

My Friend Lieut. Comm. John R. Phillips, from Michigan City, Ind., the old school-mate I ran onto up in Londonderry, you know, has just been down to London on leave.

The other night we were walking along the street after blackout. The moon was like a harvest moon back home, and made the streets almost as bright as at early dusk.

We met a bunch of British soldiers and their girls in the semi-light, and just after they passed I heard one of them say, "My God, that was Lord Louis Mountbatten!"

Mountbatten, you know, is head of all the British commandos, and quite a handsome fellow.

I just thought Mrs. Phillips had better know about this, and take precautionary action, as we military folks say.

Any man who is mistaken for Lord Louis Mountbatten—well . . .

(We trust that in case Mrs. Phillips reads THE JOURNAL she will skip this paragraph.)

Inquisitive Lady: "Sir, what kind of an officer are you?"

Doctor: "I'm a naval surgeon."

Inquisitive Lady: "My goodness. How you doctors specialize."

News Notes

Dr. Karl R. Hefti, formerly of Jersey City, New Jersey, is now associated with Dr. Charles Yeck and Dr. William L. Harris, of Evansville.

Dr. Phillip T. Hodgin, formerly of Indianapolis, has been assigned to the district health office at Rockville, by the Indiana State Board of Health.

Dr. Arthur B. Leiter, of Columbia City, has been appointed city health secretary for Columbia City. He is also county health secretary.

Dr. Robert W. Reid, of Union City, has been appointed health officer for Randolph County. He succeeds Dr. A. M. Brenner, of Winchester, who has enlisted in the United States Navy.

Dr. Russell J. Rossow, formerly of Huntingburg, has moved to Evansville, where he has accepted a position on the staff of the Welborn-Walker Hospital.

Dr. C. H. McCaskey, president-elect of the Indiana State Medical Association, of Indianapolis, left for Houston, Texas on November twenty-ninth, where he will be a guest speaker at the Post-Graduate Medical Assembly of South Texas, which convenes on December first inclusive of the third. Doctor McCaskey will appear on the program several times, his subjects being as follows: "Sphenoiditis;" "The Sulfanamide Group of Drugs in Otolaryngology;" "Laryngotracheo Bronchitis;" and "Otogenic Meningitis due to Streptococcic Infection."

COURSE IN OCCUPATIONAL DERMATOSES

A combined lecture and demonstration course in Occupational Dermatoses will be conducted in Chicago beginning January 11, 1943, by Dr. Louis Schwartz, chief of the Dermatoses Investigations Section of the United States Public Health Service of Bethesda, Maryland. The teaching period will cover two weeks, the first of which will be devoted to lectures and demonstrations, and the second to plant visits. Dermatologists, industrial physicians and others interested in the course should communicate with Dr. Edward A. Oliver, 55 East Washington Street, Chicago, Illinois.

No limit will be placed upon enrollment for the lectures, but the visits to the plants will be limited to twenty-four enrollees. No fees will be charged.

Dr. Leon J. Garrison, of Gas City, and Miss Dora May Rogers, of Elkhart, were married in Elkhart on October eighteenth.

AMERICAN COLLEGE OF SURGEONS CANCELS CLINICAL CONGRESS

The annual Clinical Congress of the American College of Surgeons which was scheduled to be held in Cleveland November 17-20, 1942, was cancelled by the Board of Regents of the College at a meeting held in Chicago, Wednesday morning, October 14.

REPORT OF MEETING OF THE INDIANA ASSOCIATION OF THE HISTORY OF MEDICINE

A meeting of the Indiana Association of the History of Medicine was held on September twenty-third, in the War Memorial Building.

"Red Cross History in the Making," was the subject of this meeting. Brief discussions were given by Dr. Clyde Culbertson, Technical Adviser, Indianapolis Chapter of the American Red Cross; Mr. Ivan S. Glidewell, director of First Aid; Miss Bertha Pullen, representing the Nursing Recruitment Service; and Mr. Robert S. Wymer, director of Chapter Activities.

Dr. Edwin N. Kime, the newly-elected president, presided. Officers and members of the Board of Directors of the Red Cross were guests at this meeting.

PUBLIC HEALTH NURSES NEEDED

Public Health Nurse positions pay $2,000 a year. The requirements are: Completion, subsequent to January 1, 1920, of a full course in a recognized school of nursing including two years in a general hospital having a daily average of 50 bed patients or more; registration as a graduate nurse; and completion of one year of study in public health nursing at a college giving a course of study approved by the National Organization for Public Health Nursing. One year of public health nursing experience is also necessary.

Other nursing opportunities open in the Federal service include the following: Junior Public Health Nurse, $1,800 a year; Graduate Nurse, $1,800 a year; Junior Graduate Nurse, $1,620; Graduate Nurse for the Panama Canal service, $168.75 a month; Nursing Education Consultant, $2,600 to $4,600 a year; and Public Health Nursing Consultant, $2,600 to $5,600 a year.

Except for Panama Canal service there are no age limits for any of these positions. Applications will be accepted at the Commission's Washington office until the needs of the service have been met.

MONTGOMERY COUNTY PAYS TRIBUTE TO ITS PIONEER PHYSICIANS

A recently dedicated collection of one hundred five portraits of pioneer physicians and surgeons of Montgomery County has been placed on display at the Culver Hospital, at Crawfordsville. The Montgomery County Medical Society provided for funds for assembling the portraits, which have been placed in glass cases. Along with the collection of portraits appears a short biography of each of these pioneer physicians. Copies of the biographical work were placed in the Library of the Indiana University School of Medicine and in the Crawfordsville Public Library, for the use of the public.

NOTICE

The Federal Bureau of Investigation has requested that physicians and pharmacists be on the lookout for a man by the name of Clarence Vernon Stevens, who is being sought on a charge of kidnapping. It is believed that Stevens suffers from a serious heart ailment, and that he is an excessive user of digitalis. It is reported that at times there is a noticeable swelling of his left side and that he breathes heavily as if suffering from asthma. In the event you secure any information concerning this individual, communicate with Mr. J. M. Lopez, special agent in charge, Federal Bureau of Investigation, United States Department of Justice, Post Office Box No. 1615, Indianapolis, or phone Market 6415.

THE FIFTH ANNUAL FORUM ON ALLERGY

The International Postgraduate Society will meet in the Hotel Statler in Cleveland, Ohio, the week-end of January 9th and 10th, 1943. This Forum will offer in most intensive presentation both the new and the old in allergy. The meeting will be characterized by its use of all the various types of instruction. Formal lectures, special talks, dry clinics, study groups, moving pictures, Kodachromes, panel discussions, ending with an "Information On Allergy, Please," will all be used to teach the physicians of the United States and Canada.

Among the fifty-eight allergists participating in the program are C. B. Bohner, M. D., who is also on the Executive Committee, and Hugh H. Kuhn, M.D., of Hammond, Indiana, who will lead a study group on "Allergic Conditions of the Ear." Arthur Coca, M.D., of New York, will receive the FORUM'S Gold Medal of award for outstanding contributions in this field and will give the annual lecture on Sunday afternoon.

A course in immunology, as it applies to allergy, will be given the week before by Dr. Eckers to a limited number of physicians and associates.

Any physician interested in either or both of the foregoing is invited to write Dr. Jonathan Forman, 956 Bryden Road, Columbus, Ohio, for copies of the printed program and registration blanks.

Dr. E. M. Sirlin, of East Chicago, and Miss Phoebe Fansler, of Logansport, were married in Indianapolis on October fifteenth.

Dr. Charles B. Kern, formerly of Lafayette, has moved to Muncie, where he will resume his practice.

Dr. Jerome E. Holman, of Indianapolis, has been appointed to the Board of Managers of the Marion County Tuberculosis Hospital, Sunnyside, succeeding Dr. A. L. Marshall.

CIVILIAN DEFENSE—EMERGENCY BASE HOSPITAL

The Medical Division of the United States Office of Civilian Defense, through its Regional Medical Officers and State Chiefs of Emergency Medical Service, has now made emergency provision for the establishment of a chain of emergency base hospitals in the interior of all the coastal States. They will be activated only in the event of an enemy attack upon our coast which necessitates the evacuation of coastal hospitals. Each base hospital will be related to the casualty receiving hospital which has been evacuated, and it is expected that the staff will be recruited largely from the parent institution.

In order to meet a sudden and unexpected crisis without delay, arrangements have been completed with state authorities for the prompt taking over of appropriate institutions in the interior of the state for this purpose and with local military establishments for the transportation of casualties and other hospitalized persons along appropriate lines of evacuation.

More than one hundred and fifty hospitals in the coastal cities are in the process of organizing small affiliated units of physicians and surgeons, which will be prepared to staff the emergency base hospitals if they should be needed. These units are composed of the older members of the staff and those with physical disabilities which render them ineligible for military service, and of women physicians. In order that a balanced professional team may be immediately available, the doctors comprising units are being commissioned in the inactive Reserve of the United States Public Health Service so that, if called to duty, they may receive the rank, pay and allowances equivalent to that of an officer in the armed forces.

Dr. George Baehr, chief medical officer of the United States Office of Civilian Defense, states that the members of these affiliated hospital units will continue to remain on an inactive status for the duration of the war, unless a serious enemy attack occurs in their Region which necessitates the transfer of casualties to protected sites in the interior. Their commissions may be terminated upon their request six months after the end of the war, or sooner if approved by the surgeon general. Such approval will be given in the event such officer desires active duty in the Army or Navy.

Nine of our country's renowned psychiatrists and neurologists voice their opinion concerning the drafting of the eighteen- and nineteen-year-olds, as follows:

AN OPEN LETTER

"So much has been said and so much implied about the desirability of drafting eighteen- and nineteen-year-old men for military service, from the viewpoint of emotional stability, that it seems in the public interest that a simple, direct statement should be made on this question.

"Speaking as individuals we wish to assure the public and parents of this age-group that there are no grounds for apprehension as to the effect of military service on these younger men as distinguished from the older men. Such statistics as are available indicate that the incidence of mental breakdowns is no greater in the eighteen- and nineteen-year age group than in the older group. If anything, it is somewhat less. It would seem to us that the proposal now before the American Congress does not unduly compromise the future mental integrity of this particular age-group or of the nation. With the government realizing and properly assuming this increased responsibility, we endorse favorable action upon the proposal to include men of eighteen and nineteen years under the Selective Service Act.

(Signed)

"Adolf Meyer, M.D.
Professor emeritus of psychiatry,
Johns Hopkins University,
Baltimore, Maryland;

C. Macfie Campbell, M.D.,
Professor of psychiatry,
Harvard University,
Cambridge, Massachusetts;

Foster Kennedy, M.D.,
Professor of neurology,
Cornell University,
Utica, New York;

C. Charles Burlingame, M.D.,
Psychiatrist-in-chief
Neuro-Psychiatric Institute,
Hartford, Connecticut;

Edwin G. Zabriskie, M.D.,
Professor of clinical neurology,
Columbia University,
New York, New York;

Winfred Overholser, M.D.,
Superintendent of the
St. Elizabeth Hospital,
Washington, District of Columbia;

S. Bernard Wortis, M.D.,
Professor of psychiatry,
New York University,
New York, New York;

Tracy Putnam, M.D.,
Professor of neurology,
Columbia University,
New York, New York;

Oscar Diethelm, M.D.,
Professor of psychiatry,
Cornell University,
Utica, New York."

INDIANA UNIVERSITY NEWS NOTES

Two members of the Indiana University Student Health Service, Drs. Robert C. Speas and John H. Smith, while waiting call to active military duty as members of General Hospital No. 32, have given military medical examinations to approximately 1,200 men, according to figures compiled at the health center.

The two University physicians volunteered for service at the outset of the formation of General Hospital No. 32, recruited largely from members of the staff of the Indiana University Medical Center, and were inducted last May along with forty other doctors, five dentists, and seventy-two nurses. The General Hospital unit, having been organized for a special military need, has not been called by the War Department, and Dean W. D. Gatch of the School of Medicine said that it might be the first of next year before the Army issues its call. Meantime, its members, although in military service, have an inactive status.

Military medical examinations given by Drs. Speas and Smith include 350 given men students in the Army enlisted reserve, and more than one hundred screening examinations for applications for admission to the naval aviation force. Dr. Speas has given examinations to 375 students who, on being called under the Selective Service Act, have asked that their preliminary physical tests be arranged by Monroe County Local Board No. 1 instead of through their home boards. Similar examinations made by Monroe County Local Board No. 2, and involving approximately 250 students, have been conducted by Dr. Smith.

Dean W. D. Gatch, of the Indiana University School of Medicine, has announced that candidates for admission to the Indiana University School of Medicine had been called for interviews October fifth and sixth, six months ahead of normal schedule, and would begin their medical training in January, nine months earlier than under peacetime conditions.

The appointment of six students at the Indiana University Medical Center to the editorial staff of of the *Arbutus*, Indiana University year-

book, has been announced by Robert D. Anderson of Anderson, editor-in-chief of the publication. The students who were appointed on recommendation of Dean W. D. Gatch, of the school of medicine, and Dean William H. Crawford, of the school of dentistry, are as follows: John E. Caton, Indianapolis, associate medical editor; George A. Gwinn, Noblesville, associate dental editor; Charles J. McFall, Shelbyville, and Wesley C. Good, South Bend, assistant dental editors; and Jo Ann Keller, Indianapolis, and Dorothy M. Norman, representatives of the Nurses' Training School.

Floyd Weatherford, of Franklin, has been elected president of the Indiana University School of Dentistry chapter of the Junior American Dental Association. Clark Scholl of Springfield, Ohio, was elected first vice-president; Ernest Regis of Boston, Massachusetts, second vice-president; and Wayne Dunlop, Michigan City, secretary-treasurer.

One hundred and twenty-eight pre-medic students have been announced by Dean W. D. Gatch, of the Indiana University School of Medicine, as having been selected from approximately 900 applicants for admission to the January class of the Indiana University School of Medicine. This will be the second class starting under the university's accelerated wartime program and will be starting nine months ahead of the regular schedule. With Dr. Carl H. McCaskey of Indianapolis as chairman, the selection committee interviewed personally approximately 400 of the applicants. In making the selections the committee considered scholarship attainments, character, physical examination, aptitude and personality.

These 128 students will begin their professional medical training with the opening of the second semester January fourth and will continue the eight-semester course without interruption. In normal times the course requires four years, but under the speed-up war program, which eliminates vacations, the course will be completed in two and two-thirds years.

Dean Gatch also announced that students applying for admission to the September class of the Indiana University School of Medicine must have their applications in by January first.

The personnel of the selection committee includes Doctor McCaskey, chairman; Drs. Cyrus J. Clark, Matthew Winters, J. K. Berman, H. O. Mertz, C. G. Culbertson, J. O. Ritchey, D. A. Boyd, Charles Thompson, J. D. Van Nuys, Walter Morton—all of the faculty of the medical school at Indianapolis; and Drs. J. A. Badertscher, Paul Harmon and Edwin H. Kime of the medical faculty at Bloomington.

Students announced for the January class are as follows:

James A. Alford, Garrett; Warren L. Angrick, Indianapolis; Arthur M. Antonow, Terre Haute; Roy J. Ault, Terre Haute; Harry W. Banker, Portland; William G. Bannon, Kokomo; Edwin N. Barnum, LaPorte; Katherine Barron, Bunker Hill; Robert C. Bartlett, Bloomington; Robert A. Beck, Terre Haute; Charles D. Benedict, Vevay; Lawrence E. Benham, Avoca; Louis H. Blessinger, Huntingburg; Jesse F. Brown, Whiting; Thomas C. Brown, Sullivan; Thurl C. Burr, Jr., Marion; Marilyn R. Caldwell, Indianapolis; Ralph Caplin, Indianapolis; Fred S. Carter, Hammond; Paul V. Chivington, Jr., Indianapolis; Jack W. Clarke, Bristol; Avery L. Coddens, Mishawaka; Richard M. Craig, Fort Wayne; William Dalton, Clay City; Howard B. Davis, Vincennes; Bernard Bolezal, Michigan City; Paul Bonner, Columbus; Jordon H. Doran, North Manchester; Tom H. Ebbinghouse, North Manchester; John Ellett, Jr., Coatesville; Wayne H. Endicott, Indianapolis; Vernon O. Erk, Richmond; Dan W. Everett, Indianapolis; Charles H. Finkbiner, Indianapolis; James H. Flood, Mishawaka; Richard R. Fowler, Bloomington; John A. Frantz, Indianapolis; Craig W. Freeman, Anderson; Forrest W. Freeman, Anderson; Robert J. Frie, Logansport; James L. Garrison, Lawrence; Ruth A. Ginther, LaPorte; Charles O. Hamilton, Bloomington; Howard T. Hammel, Monon; Arthur K. Hamp, Kokomo; Robert W. Harger, Indianapolis; Robert E. Harris, Gary; Robert J. Harvey, Indianapolis; Verne K. Harvey, Jr., Indianapolis; George M. Haymond, North Manchester; Thomas S. Herrin, Indianapolis; Albert W. Hilberg, Michigan City; Paul S. Jarrett, Sharpsville; Paul D. Johnson, Jr., Terre Haute; William S. Keezer, Vincennes; Wilbur L. Kenoyer, Wilkinson; William F. Kerrigan, Connersville; Joseph G. Klotz, Noblesville; John H. Kneidel, New Castle; Robert P. Knowles, Indianapolis; Paul G. Kohler, Mishawaka; Thomas A. Koons, Muncie; Arnold W. Kunkler, St. Anthony; Charles A. Labotka, Hammond; James F. Land, Kokomo; Leonard M. Lasser, Gary; Melvin N. Leasure, North Manchester; Harold B. Lehman, Berne; Kenneth M. Lehman, Goshen; Forrest C. Leiter, Rochester; Joseph J. Littell, Indianapolis; William J. Little, Bicknell; M. Neel Liverett, Indianapolis; Edwin S. McClain, Franklin; Camiel C. Mahank, Mishawaka; Harold M. Manifold, Ingalls; Bill L. Martz, Anderson; Melvin Matlin, Brooklyn, New York; William C. Mayfield, Bloomington; John E. Meihaus, Indianapolis; George W. Mellinger, Indianapolis; John H. O. Mertz, Indianapolis; John M. Miller, Indianapolis; William J. Miller, Fort Wayne; William A. Misch, Gary; Daniel J. Moran, Indianapolis; James W. Morse, Fremont; George M. Murphy, Franklin; Paul W. Myers, Indianapolis; Eugene Newby, Sheridan; Robert J. Nichols, Knox; Robert H. Nickerson, South Bend; Richard B. O'Bryan, Columbus; George E. Paine, Elkhart; James F. Peck, Princeton; Thomas A. Petty, South Bend; Eugene A. Presti, Indianapolis; Glen A. Ramsdell, LaPorte; Robert L. Raphael, Evansville; Mary E. Rhamy, Wabash; Robert E. Rinehart, Logansport; Jordan C. Ringenberg, Woodburn; William C. Robertson, Fort Wayne; Joseph C. Robinson, Evansville; Bertram S. Roth, Muncie; Marshall J. Rowdabaugh, Warsaw; Henry J. Rusche, Evansville; Joseph V. Schetgen, Anderson; Donald M. Schlegel, Brazil; Eugene E. Schmidt, Fort Wayne; Joseph W. Sibbitt, Frankfort; Robert M. Squire, Lyons; Ben O. Stands, LaFontaine; Ralph M. Steffy, Logansport; Karl Stillwater, Detroit; Lane E. Strock, Portland; Lloyd S. Terry, Crawfordsville; William E. Van Fleit, Garrett; C. William Vize, Evansville; George W. Wade, Indianapolis; James M. Wagoner, Huntingburg; Charles F. Wible, Jr., Seymour; Robert C. Wiechman, Richmond; Robert D. Williams, College Corner, Ohio; Randall H. Willis, Petersburg; John D. Wilson, Evansville; Martin Wilson, Muncie; and Donald A. Zalac, Indianapolis.

1943 Dues Are Payable Now!

Deaths

As we are going to press we learn of the death of Dr. Howard B. Mettel, former chief of the Bureau of Maternal and Child-Health of the Indiana State Board of Health, and recently connected with the American Red Cross at St. Louis, Missouri. Further details will appear in the next issue.

Mary Ladd Bruner, M.D., of Greenfield, died on November sixth, at the age of eighty-seven. She graduated from the Northwestern University Woman's Medical School, Chicago, in 1885.

* * *

Luella M. Masters, M.D., of Thorntown, died on October seventh. She was eighty-one years of age. Doctor Masters graduated from the Syracuse University College of Medicine, Syracuse, in 1891.

* * *

Ernest L. Mattox, M.D., of Terre Haute, died November first, aged sixty-two. He graduated from the Rush Medical College, Chicago, in 1905. Doctor Mattox was a member of the American College of Surgeons. He was a member of the Vigo County Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Charles J. Overman, M.D., of Marion, died on October third, at the age of seventy-six. He graduated from the Medical College of Indiana, Indianapolis, in 1896. Doctor Overman was a member of the Grant County Medical Society, an honorary member of the Indiana State Medical Association, and a member of the American Medical Association.

* * *

Alfred P. Roope, M.D., formerly of Columbus, died at St. Petersburg, Florida, on October second, aged seventy-three. He was a graduate of the Louisville Medical College, Louisville, in 1894.

Society Reports

INDIANA STATE MEDICAL ASSOCIATION EXECUTIVE COMMITTEE

September 28, 1942.

Roll call showed the following present: C. A. Nafe, M.D., chairman; E. O. Asher, M.D.; M. A. Austin, M.D.; C. H. McCaskey, M.D.; F. T. Romberger, M.D.; E. M. Shanklin, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Membership Report

Number of members Sept. 28, 1942	3,222	110 hon. mems. 198 in service
Number of members Sept. 28, 1941	3,211	
Gain over last year	11	
Number of members Dec. 31, 1941	3,228	

Treasurer's Office

Report made that negotiations are now in process to liquidate the indebtedness on the Beachton Court Apartments.

1942 Annual Session at French Lick, September 29 and 30 and October 1, 1942

Commercial exhibit. 28 spaces sold to 26 exhibitors.

Scientific program. As Dr. Arnold Griswold has been called into service, his paper is to be read by title and published in THE JOURNAL.

Medical and Surgical Relief Committee. Correspondence reviewed by the committee indicating that despite the claims of this organization, it does not have the official backing of the Office of Civilian Defense.

Banquet. Extemporaneous talk by Dr. Thomas A. Reed of New York, consultant for the National Municipal Government League, at the banquet approved by the committee.

Special meetings. Committee informed in regard to special meetings to be held during the convention.

Actions to come before the House of Delegates. Dr. Nafe is to make a special statement before the House of Delegates, calling the attention of the delegates to certain questions that have been referred to the House by the committee.

The committee was informed of the resolution to be presented to the House of Delegates by the Committee on the Prevention of Traffic Accidents.

Legislative, Legal and Social Security Matters

National

No action reported on the Tolan Chiropractic Bill.

Federal A. M. A. Legislative Bulletin No. 19 sent to each member of the Executive Committee.

Local

Suggestion that state lien law be extended to include medical services. This was discussed by the committee, Albert Stump saying that in his opinion it would not be wise to ask for such extension at this time.

Opinion of the attorney in regard to the disposal of "dead human bodies" brought to the attention of the committee. The committee recommended that this opinion might form the basis for a special article in THE JOURNAL.

Questionnaire from Federal Security Agency in regard to unemployment compensation turned over to Mr. Stump for review. Mr. Stump is to give his opinion on this at the next meeting of the Executive Committee.

Letter received from physician asking "Just what is the attitude of the state society on compulsory health insurance? Where will I find that attitude expressed?" The committee suggested that this question be taken up with the American Medical Association and that information obtained there be forwarded to the physician inquiring about this matter.

Organization Matters

Committee informed that the 1943 meeting of the American Medical Association has been postponed.

State Board of Health

Attention of the committee called to the State Board of Health meeting for local directors of OCD and local health officers to be held Tuesday evening, September 29.

Program for obstetrical care of wives of soldiers who are on duty at Fort Harrison brought to the attention of the committee in a letter from Dr. H. F. Nolting. The committee suggested that this be brought to the attention of the Council.

Medical Economics

Resolution proposed by Planned Parenthood Federation of America brought to the attention of the committee. The committee felt that this should be placed before the House of Delegates for approval or disapproval.

Medical Relief

WPA report for August brought to the attention of the comittee.

Socialized Medicine

Report made that the Navy had set up a plan to give medical services to families of officers in the Chicago area. It was understood that such care was to be given at St. Luke's Hospital in Chicago. The committee suggested that information concerning this be obtained and presented to it at the next meeting.

Rhode Island Cash Sickness Compensation Act discussed by the committee. It is said that this act was sponsored by the Federal Social Security Agency and is to be held up as a model law to be enacted in other states.

War Medicine

Request for monthly report on changes of address and professional status of physicians received from Allocation Committee of Procurement and Assignment Service. The committee was of the opinion that the state association should do everything possible to coöperate with the Procurement and Assignment Service in this matter.

Indiana "hot spots" listed by the United States Public Health Service brought to the attention of the committee. Among these are Charlestown and LaPorte, Indiana.

Copy of book, "When Doctors are Rationed," by Dwight Anderson and Margaret Baylous, to be obtained by the state association.

Letter from Dr. Shanklin suggesting a revamping of industrial practice in large communities brought to the attention of the committee. His letter recommends that any doctor who has so much industrial practice that he requires the assistance of a younger man who should be in military service, be forced to release some of his appointments to other capable men in the community for the duration. He suggests a recommendation to the effect that "associate contracts be abrogated for the duration." The committee suggested that Dr. Shanklin take this matter up with the Industrial Health Committee.

Letter received from Major Glen W. Lee concerning new regulations in regard to Army physical examinations. The committee suggested that an article be prepared by Major Lee for THE JOURNAL concerning these new regulations.

Dr. John R. Newcomb was appointed as an assistant to Dr. Charles R. Bird on Procuremnt and Assignment Service for Indiana.

Actions of the new War Participation Committee of the American Medical Association, contained in a letter from Olin West, brought to the attention of the committee.

Group Hospitalization and Medical Service Plans

Dr. Nafe made a report upon his talk on hospitalization and medical service plans before the CIO convention.

FORTUNE survey, the Michigan Medical Service Bulletin, the New Jersey and New Zealand medical service plans all brought to the attention of the committee.

The following definitions of "physician," "osteopath," and "chiropractor," prepared by the attorney of the association, brought to the attention of the committee:

> A *PHYSICIAN* is a person trained and licensed to use any and all kinds of medicines, surgery, manipulations, electrical devices, and any other methods which scientific research and experience have found to be effective in the treatment of any ailment.
>
> An *OSTEOPATH* is one who is trained and licensed to use only osteopathy, which includes the use of surgery, anesthetics, antiseptics and narcotics, but rests chiefly upon the use only of manipulations in the treatment of any ailment.
>
> A *CHIROPRACTOR* is one who is trained

(Continued on page six)

(Continued from page 742)

and licensed to use, in the treatment of any ailment, nothing but manipulations of the spinal column.

This matter is to be discussed further at the next meeting of the committee.

Future Meetings

(1) American Public Health Association, St. Louis, October 26 to 30, 1942.

(2) Secretaries' Conference, American Medical Association, November 20 and 21, 1942.

The secretary was instructed to attend these meetings.

There being no further business, the meeting was adjourned.

LOCAL SOCIETY REPORTS

Adams County Medical Society members met at the Rice Hotel, at Decatur, on October twentieth. A general discussion of current medical problems was held. Eight members attended the meeting.

* * *

Clay County Medical Society members met at the Glenn home, at Brazil, on November third. Eleven members and one guest were present at this meeting.

* * *

Hendricks County Medical Society members held a meeting at Crawley Hall, at Danville, on September twenty-eighth. Doctor Isabel Morgan, of Danville, was the speaker. Twelve members were in attendance at the meeting.

* * *

Randolph County Medical Society members met at Winchester, on November ninth. Doctor L. K. Phipps, of Union City, was the guest speaker of the evening. Thirteen members were present at the meeting.

* * *

Rush County Medical Society members met at the Lollis Hotel, at Rushville, on November twelfth. Doctor Robert Vandivier, of Indianapolis, spoke on "Tularemia." Twelve members attended the meeting.

* * *

Tippecanoe County Medical Society members held a meeting at the William Ross Sanitarium, at Lafayette, on October thirteenth. Doctor Frank Jennings, of Indianapolis, was the guest speaker. He presented a paper on "Differential Diagnosis of Chest Diseases."

* * *

Vermillion County Medical Society members met at the Hotel Wolford, at Danville, on October sixth.

* * *

Wabash County Medical Society members held a dinner meeting at the Wabash County Hospital, at Wabash, on October seventh.

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

In addition to our Professional Liability Policy for private practice we issue a special

MILITARY POLICY

to the profession in the Armed Forces at a

REDUCED PREMIUM

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

Disabilities occasioned by war are covered in full

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

PHA OMAHA INSURANCE PCA OMAHA

For ethical practitioners exclusively
(57,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $32.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $64.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $96.00 per year

40 years under the same management

$2,220,000 INVESTED ASSETS
$10,750,000 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

COUNCILOR DISTRICT REPORTS

SEVENTH DISTRICT MEDICAL SOCIETY MEETING

The Seventh District Medical Society held a meeting at the senior high school building, at Plainfield, on November third. The principal speakers at the meeting were Doctor Isabel Morgan, of Danville; Doctor K. L. Dickens, of Martinsville; Lieutenant-Colonel M. H. Barker, of Fort Benjamin Harrison; and Lieutenant-Colonel M. L. Mason, of Fort Benjamin Harrison.

ELEVENTH DISTRICT MEDICAL SOCIETY MEETING

The Eleventh District Medical Society held a meeting at the Eagles home, at Peru, on October twenty-first. The speakers at the meeting were Lieutenant Charles R. Forrester, of Toledo, Ohio, who is now stationed at the Peru aviation base and who saw action in the battle of the Midway Islands; Doctor Frederick Yonkman, of Detroit, Michigan, and Dr. R. C. Ottinger and Mr. T. A. Hendricks, of Indianapolis.

The Clay County Medical Society used the following scheme in promoting interest in their local society meetings. The letter mailed to its members is reprinted, with the thought that it might be helpful to other societies:

"Dear Doctor:

"There will be a regular meeting of the Clay County Medical Society, at the Glenn home on S. Walnut Street, Brazil, on Tuesday November 3, at 6:30 P. M. You might be interested to know Doctor, that there have been —— meetings this year and you have attended ——. The forthcoming meeting is an important one as we have not met since August 4th. You are perhaps going to say that you can't come because you are too busy or for some other reason.

"I think of the three hundred and sixty-five evenings in the year, that you can afford to spend ten at your medical society without working any hardship on you or seriously affecting the health of your patients. The two or three hours you spend each time should be profitable to you, and if they are not, then it is who's fault, Doctor? At this meeting I hope to issue receipts for your dues for the coming year. There are numerous reports to be submitted. Call my office, Tel. 8031, and tell my secretary to reserve a plate for you at the dinner and DO IT NOW."

WOMAN'S AUXILIARY to the Indiana State Medical Association

President—Mrs. Arnold H. Duemling, Fort Wayne
President-elect—Mrs. James W. Baxter, Jr., New Albany
Corresponding Secretary—Mrs. E. M. VanBuskirk, Fort Wayne
Treasurer—Mrs. C. E. Monk, Kendallville

The Woman's Auxiliary to the Marion County Medical Association had a luncheon-bridge at the Meridian Hills Country Club on October sixteenth. After a delightful luncheon a short business meeting was held at which Mrs. C. F. Voyles read the revisions to the constitution. Several physicians' wives from Fort Benjamin Harrison and Camp Atterbury attended. There were eighty-five members present, and seventeen tables of bridge were in play.

The committee for this fall get-together consisted of Mrs. Harry Kerr, chairman; Mrs. Bert E. Ellis, Mrs. J. F. McBride, Mrs. John Brayton, and Mrs. Russell Hippensteel.

The Allen County Medical Auxiliary had Dr. L. Potter Harshman as its guest speaker at a meeting at 7:15 o'clock on October twenty-seventh, at the Lutheran Hospital. His subject was "Psychiatry in the Present Crisis." Following his talk, Mrs. Elmer C. Singer presented recent legislation of interest to medical groups.

Mrs. Ralph W. Elston, Mrs. S. G. Welty, and the wives of Lutheran Hospital staff members were hostesses for the evening. The program committee which arranged for the talk by Dr. Harshman was comprised of Mrs. Elmer L. Cartwright, chairman; Mrs. W. W. Duemling, Mrs. Nathan L. Salon, Mrs. Garrette Van Sweringen, Dr. Berniece Williams, Mrs. D. H. McKeeman and Mrs. Wilkie B. Rice. Mrs. Lynn Elston and Mrs. Edward H. Schlegel arranged decorative appointments for the supper.

The Marshall County Woman's Auxiliary is one of the smaller units in the state. Our membership is fourteen. We are proud of our *Hygeia* report; new subscriptions have been sent this year to eight of the schools in the county. Our members have cooperated with the Red Cross, knitting and sewing, taking the first aid course, and one member is an instructor of a home hygiene class. We sponsored the cancer control display at the Bourbon Fair in September, 1941; the members of the Auxiliary were in charge of the exhibit during the three days.

According to our Constitution, the Woman's Auxiliary to the Orange County Medical Society has only four meetings a year. However, since the first of the year we have felt that this was not enough because we had many problems to discuss. Since January we have had five meetings, supper meetings at the homes of our members, at which problems concerning our county medical society were discussed at the table.

Our members have done more than their share of the war program activities. One of our members taught a Home Nursing class.

Our main project for the year was the promotion of a wider circulation of "*Hygeia*." A survey of all doctors' and dentists' offices, schools, libraries and beauty parlors was made. Fifteen subscriptions were obtained, eleven of which were gift subscriptions.

Although Uncle Sam is steadily taking members away from our small group of ten for his own use, those of us who are left are trying to carry on the work.

Books

RECEIVED

DOCTORS OF THE MIND. By Marie Beynon Ray. 335 pages. Cloth. Price $3.00. Little, Brown and Company. Boston, 1942.

THE MAKING OF A SURGEON. (A Midwestern Chronicle.) By Ernest V. Smith, M.D. 344 pages with several illustrations. Fabrikoid. Price $3.00. The Berndt Printing Company, Fond du Lac, Wisconsin, 1942.

MEDICAL PARASITOLOGY. By James T. Culbertson, Assistant Professor of Bacteriology, College of Physicians and Surgeons, Columbia University. 285 pages with several illustrations. Cloth. Price $4.25. Columbia University Press, New York, 1942.

WHEN DOCTORS ARE RATIONED. By Dwight Anderson, Director Public Relations, Medical Society of the State of New York, and Margaret Baylous, Therapist, Charleston General Hospital, Charleston, West Virginia. 255 pages. Cloth. Price $2.00. Coward-McCann, Inc., New York, 1942.

SULFANILAMIDE AND RELATED COMPOUNDS IN GENERAL PRACTICE. (Second Edition.) By Wesley W. Spink, M.D., Associate Professor of Medicine, University of Minnesota Medical School. 374 pages with several charts and tables. Cloth. Price $3.00. The Year Book Publishers, Inc., Chicago, 1942.

CLINICAL ANESTHESIA. (A manual of Clinical Anesthesiology.) By John S. Lundy, M.D., Head of Section on Anesthesia, Mayo Clinic; Professor of Anesthesia, Mayo Foundation for Medical Education and Research, University of Minnesota. 771 pages. 266 illustrations. Cloth. Price $9.00. W. B. Saunders Company, Philadelphia, 1942.

REVIEWED

FROM CRETIN TO GENIUS. By Dr. Serge Voronoff. 281 pages. Cloth. Price $2.75. Alliance Book Corporation, New York, 1941.

The author, at present honoring this country with his residence, is well known for his hand in the fascinating (and lucrative) business of rejuvenation of senile individuals by means of animal glandular grafts. In this volume, replete with philosophic beauties and metaphysical soarings, he is moved to discuss the mechanisms of thought, the construction of genius, the role of the subconscious, and last, but not least, a plug for his technic of grafting monkey thyroid glands into cretins. Not exactly a shrinking violet, he has shared with the equally famed Steinach of Vienna, a reputation which has attracted many individuals who had suffered much of the ravages of time but were still young in heart and amorous strivings. Such of those who did enter these veritable Fountains of Youth were known to leave considerably lighter in purse and heavy in disillusionments. There have been many charges of charlatanry and quackery, some of them raised by authoritative students and investigators, less subject to zeal and enthusiasm and more alert to the infancy and paucity of real knowledge in the field. It is perhaps best expressed in a remark attributed to A. J. Carlson, the physiologist, to the effect that the physician is the monkey and the patient is the goat. Some may have remembered that the justly renowned "Goat Gland" Brinkley belonged to this school.

The jacket cover describes the book in glowing, if not ecstatic terms, as the work of one who has "astounded the world," "presents several daring hypotheses" and a lot more. The author hypothesizes that the mechanism of thinking is still not understood (which is entirely correct), but opines that it is the sum total of the excitation radiations of the cerebral cortical cells. Thinking can be classified as of two brands: First, a sort of stick-in-the-mud of conscious common-horse-sense; and second, a mysterious subconscious which produces at its own will. The latter appears to be the repository and fountain of the mental activity, which is so characteristic of the genius. It operates without conscious intervention or effort and in ways mysterious to comprehend. Here are cited the testimonials of many distinguished scientists and artists. Further, genius is a hereditary thing.

The genius is one who is endowed with an extraordinary development of gray matter, which is responsible for those divinely inspired flashes of creativeness along usually some highly specialized line. Otherwise, he may be merely normal, mediocre or so stupid, aside from his extraordinary attainment, as to not know when to come in out of the rain. Among geniuses are some so unfortunate as to never show the light under their bushels because they are cretins. A mere slip of the hand and this can be changed from cretin to genius. The doctor borrows, permanently, the thyroid of some unfortunate simian, then ties it into the anatomy of the cretin; Eureka! he is de-cretinized. He speaks well of himself. Thus, he says, "The grafting of glands is a fairly recent accomplishment. I have created it all of a piece. My method, applied by my pupils the world over has already revitalized thousands of men and five score of women . . . ," and so on. But try to find definite data, verifications and repetitions of experiments—try! Surely the grafting of glands of internal secretion is a perfectly legitimate field in physiology and medicine, but it will be long in catching up with the author.

He winds up by saying that in all ages geniuses have been promptly misunderstood and not a little persecuted. Good examples are Galileo and Pasteur. Then, he coyly intimates that he has been misunderstood and persecuted. He is a genius, but some people just don't know or appreciate it.

For the busy doctor this book can be safely passed up. For those who want to be diverted and amused for the hour, especially by its many anecdotes, it might be worth a gander.

H. B.

ZEMMER
Write for Literature
PRESCRIBE OR DISPENSE ZEMMER PHARMACEUTICALS
Tablets, Lozenges, Ampoules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled. Write for catalogue.
Chemists to the Medical Profession
IN-12-42
THE ZEMMER COMPANY • OAKLAND STATION • PITTSBURGH, PENNSYLVANIA

INDIANA STATE BOARD OF HEALTH
BUREAU OF COMMUNICABLE DISEASES

Monthly Report, August, 1942

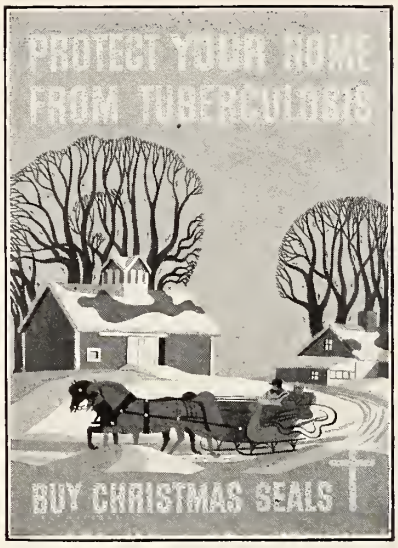
Diseases	*Aug. 1942*	*July 1942*	*June 1942*	*Aug. 1941*	*Aug. 1940*
Tuberculosis, Primary	2	2	2	10	0
Tuberculosis, Active	65	134	111	144	225
Tuberculosis, Arrested	10	8	9	10	0
Chickenpox	8	29	132	15	19
Measles	26	89	305	56	22
Scarlet Fever	49	39	96	38	73
Typhoid Fever	18	5	7	16	19
Whooping Cough	233	200	168	84	74
Diphtheria	23	13	9	19	22
Influenza	11	15	14	18	9
Pneumonia	37	15	25	44	30
Mumps	16	14	59	1	24
Poliomyelitis	21	11	0	35	261
Cerebro-Spinal Meningitis	3	1	1	4	1
Undulant Fever	6	2	2	2	4
Tularemia	1	0	0	1	1
Dysentery	6	0	0	0	2
Rocky Mt. Spotted Fever	1	2	0	4	2
Vincent's Angina	7	4	6	0	0
Malaria	1	1	2	0	15
Trachoma	1	0	0	0	1
Rubella	1	4	19	0	0

Monthly Report, September, 1942

Diseases	*Sept. 1942*	*Aug. 1942*	*July 1942*	*Sept. 1941*	*Sept. 1940*
Tuberculosis, Primary	2	2	2	5	0
Tuberculosis, Active	147	65	134	108	187
Tuberculosis, Arrested	9	10	8	8	0
Chickenpox	20	8	29	16	43
Measles	21	26	89	10	26
Scarlet Fever	67	49	39	50	86
Smallpox	3	0	2	1	0
Typhoid Fever	21	18	5	15	28
Whooping Cough	150	233	200	67	88
Diphtheria	19	23	13	17	27
Influenza	42	11	15	46	34
Pneumonia	47	37	15	43	31
Mumps	14	16	14	8	18
Poliomyelitis	25	21	11	36	232
Cerebrospinal Meningitis	2	3	1	1	2
Undulant Fever	3	6	2	4	5
Encephalitis	2	0	0	0	0
Rubella	3	1	4	0	0
Dysentery	2	6	0	1	7
Vincent's Angina	2	7	4	0	0
Tetanus	1	0	0	0	0
Hydrophobia	1	0	0	0	1

Monthly Report—October, 1942

Diseases	*Oct. 1942*	*Sept. 1942*	*Aug. 1942*	*Oct. 1941*	*Oct. 1940*
Tuberculosis, Primary	10	2	2	0	0
Tuberculosis, Active	124	147	65	86	113
Tuberculosis, Arrested	17	9	10	3	0
Chickenpox	120	20	8	79	166
Measles	47	21	26	16	35
Scarlet Fever	204	67	49	200	200
Smallpox	1	3	0	1	4
Typhoid Fever	12	21	18	9	15
Whooping Cough	138	150	233	44	74
Diphtheria	36	19	23	65	33
Influenza	63	42	11	72	21
Pneumonia	84	47	37	50	36
Mumps	123	14	16	10	35
Poliomyelitis	17	25	21	9	89
Undulant Fever	4	3	6	2	1
Vincent's Angina	3	2	7	0	0
Malaria	1	0	1	9	1
Rubella	1	3	1	1	0
Cerebro-spinal Meningitis	1	2	3	1	6



COOK COUNTY
GRADUATE SCHOOL OF MEDICINE

(In Affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Techniques with practice on living tissue, every two weeks throughout the year. General Courses of One, Two, Three and Six Months; Clinical Courses; Special Courses.

MEDICINE—One Month Course in Electrocardiography and Heart Disease starting the first of every month, except December.

FRACTURES & TRAUMATIC SURGERY—Formal and Informal Courses.

GYNECOLOGY—Clinical and Diagnostic Courses.

OBSTETRICS—Formal and Informal Courses.

OTOLARYNGOLOGY—Clinical and Special Courses.

OPHTHALMOLOGY—Formal and Informal Clinical Courses.

ROENTGENOLOGY—Courses in X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy every week.

UROLOGY—Two Weeks Course and One Month Course available every two weeks.

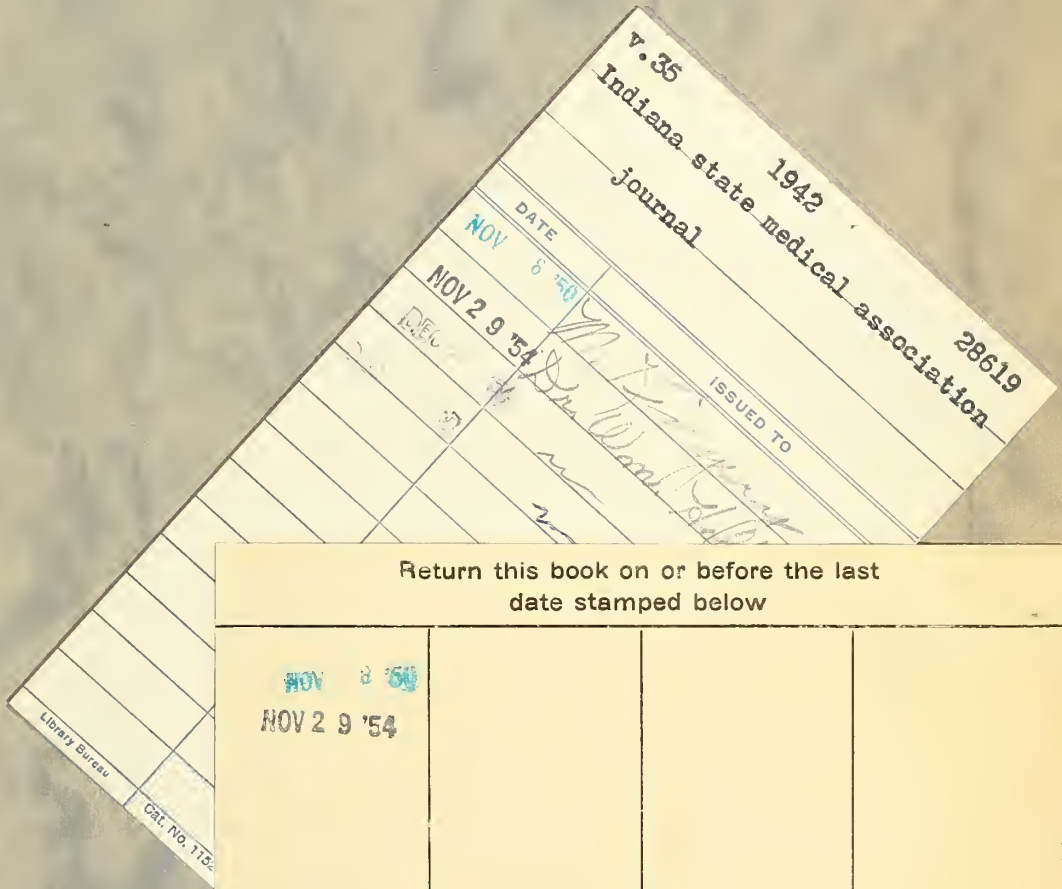
CYSTOSCOPY—Ten Day Practical Course every two weeks.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES.

TEACHING FACULTY * ATTENDING STAFF OF COOK COUNTY HOSPITAL.

Address: Registrar, 427 South Honore Street, Chicago, Illinois

Indiana state medical association journal
V.35 1942
28619



Return this book on or before the last date stamped below

NOV 2 9 '54

Library Bureau Cat. no. 1174